

AMERICAN GAS ASSOCIATION



JUNE
1952

Open the door!...

It's survival!
It's success!

Not a single more
part in the entire
freight system!
Break down... we
can make it work!

**to the most care-free...
repair-free refrigerator
in the world!**

Open the door to the existing, phononics, all-new Gas Servo refrigerators for 1952! Every convenience... every beauty... every experienced feature is here. Everything—the marvel of the motion freezing system that is so smooth, so silent, so completely trouble-free that Servo gives you a **10-year-warranty** on it—-as long as any other refrigerator carries! You wash it quickly—open the door of the new Servo and see why Gas has come to stay!

AMERICAN GAS ASSOCIATION
GAS, the modern fuel for transportation, heating, refrigeration, water heating, housekeeping, air conditioning, kitchen drying, refrigeration.

The Ethics of
Life from a
Liberationist Perspective



The A. G. A. discharge spread one served uses a new and powerful attention-getting technique to sell the superiority of gas for refrigeration. This color spread will appear in the June 28 issue of the *Saturday Evening Post*, and the July 28 issue of *Life*. This ad will supplement the services of Service in the same publications.



NATURAL GAS pipeline lengths await burial under New York harbor's busy Narrows. The S. S. Independence is in the background. Story on page 12

GAS has caught the public imagination and is building substantial public favor. Public appreciation has aided the spectacular rise in the gas load, said A. G. A. President Charles E. Bennett, at the National Gas Spring Meeting.

Pipelines have become the literal modern symbol of the mythical cornucopia of plenty, contributing richly to a more abundant life for gas users. Such was the apt simile drawn, at the same meeting, by President A. G. Roach of a division of U. S. Steel Company.

Pipelines are also a symbol of plentiful opportunity for gas utilities, as well as for gas appliance manufacturers and dealers. Amid this fertile field of public appreciation they will be squandering an opportunity if they fail wholeheartedly to promote gas and gas appliances.

The consumer is ready for the story of new gas appliances. The gas industry has developed high quality, superbly performing new models that will command his buying power. As one speaker before the Eastern Natural Gas Regional Sales Conference said, "The big thing is to approach your selling opportunity aggressively, plan a program and pursue it on a year around basis."

JAMES M. BEALL
DIRECTOR, PUBLIC INFORMATION

LAURANCE C. MESSICK
EDITOR

RICHARD F. MULLIGAN
ART SUPERVISOR
LOIS G. SCHNEIDER
NEWS EDITOR

EDITORIAL OFFICES:
AMERICAN GAS ASSOCIATION
420 LEXINGTON AVE., NEW YORK 17, N.Y.

CONTENTS FOR JUNE 1952

FEATURES

LEADERS HAIL NEW NATURAL GAS ERA	2
SOLIDITY AND VIGOR KEYNOTE GAS—by Charles E. Bennett	7
STEEL FOR THE PIPES OF PLENTY—by Alden G. Roach and Ralph W. Seely	9
SEA TRAFFIC DELAYS PIPELINE	12
MAKE SERVICE A POTENT SALESMAN—by Richard B. Barger	14
CREDIT AND COLLECTION EXPERIENCE	17
GAS IS HOME SHOW HIT	19
LOAD YOUR FUTURE WITH DRYER SALES—by Judson S. Sayre	20
GAS RESERVES ASSURE GROWTH—by Claude A. Williams	22

SECTIONS

HOLD FIRST MATERIALS CONFERENCE (ACCOUNTING)	24
PRODUCT KNOWLEDGE AIDS SALES (INDUSTRIAL & COMMERCIAL)	26
GAS EXHIBIT DOMINATES RESTAURANT SHOW (INDUSTRIAL & COMMERCIAL)	27
PLAN FOR MORE TIRE MILEAGE—by G. M. Sprowls (OPERATING)	29
ONLY MORE SELLING IS NEEDED (RESIDENTIAL)	32
REFRIGERATOR DRIVE OPENS (RESIDENTIAL)	36
EDITORS HEAR "CP" RANGE HIGHLIGHTS (RESIDENTIAL)	37

DEPARTMENTS

INDUSTRY NEWS	39
CURRENT STATISTICS OF THE GAS INDUSTRY	46
OBITUARY	47
PERSONAL AND OTHERWISE	48
NEW A. G. A. MEMBERS	58
CONVENTION CALENDAR	59
PERSONNEL SERVICE	60

THE MONTHLY IS INDEXED BY THE INDUSTRIAL ARTS INDEX

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Eskil I. Bjork, Chicago, Charles E. Bennett, Pittsburgh, A. G. A. president, Frank C. Smith, Houston, A. G. A. vice-president, and W. M. Jacobs, Los Angeles, chat

R. R. Blackburn, Los Angeles Arrangement holds the attention of D. Dallas, ex-president of and George H. Smith



Managing directors Clifford Johnstone, PCGA, San Francisco, and H. Leigh Whitelaw, GAMA, N. Y., pause with F. H. Adams, Toledo



H. B. Noyes, Washington Gas Light Co. and PAD; J. S. Moulton, Pa. Gas and Electric Co., chairman, Program Committee; F. M. Banks, South Calif. Gas Co.; and A. F. Bridge, Southern Counties Gas Co. of Colma



Silent concentration was apparent when the camera caught Franklin O. Rouse, New York, and Alden G. Roach, Los Angeles, Tuesday morning general session speakers, with F. M. Banks, who presided, and R. W. Seely, both of Los Angeles



Norman R. McKee, Los Angeles, H. N. Mallon, president, Dresser Industries, Dallas, and Walter C. Beckjord, president, The Cincinnati Gas & Electric Co., share a moment of levity between sessions



It must have been a pleasant subject that held the attention of Elmer F. Schmidt, Dallas, and E. P. Noppel, New York, between sessions



M. V. Burlingame, vice-president, Natural Gas Storage Co. of Ill., Chicago, who told of gas storage in the Herscher Dome, and J. J. Hedrick, president, Natural Gas Pipe Line Co. of America, chat together

Leaders hail new natural gas era

While natural gas advances as the nation's fastest growing industry, nearly seven hundred of its leaders paused to take stock and look forward, during the American Gas Association, Natural Gas Department annual spring conference, May 12 and 13, Biltmore Hotel, Los Angeles. For the first time in 46 years, this meeting was held in California which long has been a major natural gas producer and distributor.

From a "quiescent" business in the 1920's the gas industry today is "booming," said Charles E. Bennett, president of both A. G. A. and The Manufacturers Light and Heat Co., Pittsburgh, Pa. Striking the conference keynote, he recalled how natural gas has advanced the entire gas industry in a spectacular fashion.

"We have seen the number of meters serving natural gas grow to nearly eighteen million in 1951," he said. "This is a 30 percent increase since 1949. It does not include the number of meters serving mixed gas of which natural gas is a part. This service would add more than three million meters. There are no signs indicating an immediate slowdown in change-over to straight natural or mixed gas."

Continuing with industry growth figures, Mr. Bennett said that "in the last two calendar years sales of natural gas increased by more than 36 percent. It is almost unbelievable to us old-timers in the business that nearly forty-five billion therms of natural gas were sold in 1951." All of this means, he said, that "we of the natural gas business today are serving well over one-quarter of the stationary, competitive energy requirements of the United States."

Then he expressed the "big but." "Now let's stop passing out the orchids and grab hold of the brake! We of the natural gas business cannot slip into a self-satisfied frame of mind. We dare not become too complacent. Natural gas has gone whole hog in replacing manufactured gas. Now is the time to stop, look and listen!"

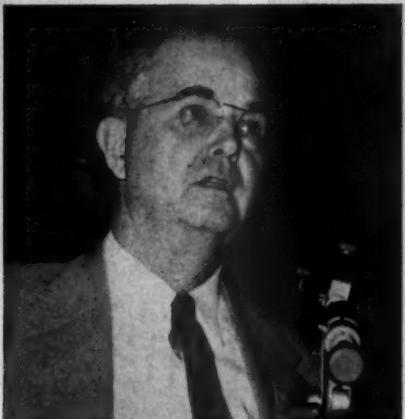
In this respect, Mr. Bennett said, "we have three responsibilities of about equal importance. They are: (1) Service, (2) Unification and integration, and (3) Safety."

Meanwhile, the natural gas industry is continuing its steady advance into New England, while expanding its looping operations and looking forward to a last big push into the Pacific Northwest. In line with this program, two experts stated that it takes lots of diplomacy, logic and just plain patience to lay thousands of miles of natural gas pipeline from oil well to gas range.

Before a fraction of pipe is laid, natural gas transmission



Raymond W. Todd, vice-president, Pacific Lighting Gas Supply Co., Los Angeles, described the operations at La Goleta field



General session speaker C. H. Zachry, president, Southern Union Gas Co., called A. G. A. research "A Tool for Industry Progress"



H. I. Putnam, Texas Eastern Transmission Corp., jointly with B. K. Dunshee, told how to make friends and get rights-of-way



G. S. Young, president, Columbia Gas System, Inc., New York; **Louis Rutherford**, chairman of the board, Servel, Inc., Evansville, and GAMA president, and **E. D. Bivens**, president, United Fuel Gas Co., Charleston



Among speakers were: **J. O. Stephens**, Westinghouse Electric Corp.; **E. E. Stovall**, Lone Star Gas Co.; **F. S. G. Williams**, Taylor Forge and Pipe Works; and **F. B. Haverfield**, Transcontinental Gas Pipe Line Corporation

company locating engineers scout the future pipeline path. After that comes the matter of "Making Friends—And Getting Rights of Way," according to B. K. Dunshee, manager, Land Department, Pacific Gas & Electric Co., San Francisco, and H. I. Putnam, superintendent, Rights-of-Way Dept., Texas Eastern Transmission Corp., Shreveport.

Following in the footsteps of engineer-surveyors come right-of-way agents who arrange to get landowners' written permission to "plant" gas-carrying pipelines beneath their land. These agents have to be logicians, diplomats and salesmen with 100 percent sales records—or else the pipeline does not go through.

Landowners are pleased not merely by politeness, said Mr. Dunshee, "but by the true courtesy which is made up of understanding consideration and wholesome respect for the other fellow and which begets the same treatment from him." In addition, there is a "hard-headed analysis of the economic and human factors involved and a correspondingly shrewd negotiation."

Once the legal path is smoothed, next comes the pipe-

line construction "spread," a fast-moving crew "with all of its equipment coming over the brow of a hill—bulldozing crops, cutting fences and stringing pipe," Mr. Putnam continued. "Sometimes, the first appearance is like a tornado with modern equipment."

Perhaps this is the politest tornado in history, since landowners nowadays are notified in advance of its coming. Farmers, for example, can save some crops which might have been destroyed by clearing crews, and even move cattle to new fields.

Even as natural gas is expanding in coverage and utilization, still greater horizons are being found for it through research. Profitable research is a calculated risk at 1-to-5 odds or less under proper management, C. H. Zachry, president, Southern Union Gas Co., Dallas, told the conference.

Although du Pont is both searching and researching to develop new products such as nylon, he said his industry already has the product—natural gas. Consequently, the gas industry's researches involve considerably reduced risk.

"Cooperative sponsorship is the ideal way of doing research for the gas industry," Mr. Zachry continued. "The



B. K. Dunshee, Pacific Gas and Electric Co., chats with Joe T. Innis, Northern Natural Gas Co., Transmission Committee chairman



C. A. Williams, Transcontinental Gas Pipe Line Corp., a speaker, with F. B. Wright, Southern Counties Gas Co. of California



C. H. Waring, The Gas Service Co., Approval Requirements Committee chairman, and Henry Fink, Michigan Consolidated Gas Company



The camera catches Hall M. Henry, vice-president, NEGEA Service Corp., Boston; R. J. Rutherford, president, Worcester (Mass.) Gas Light Co.; and Harland C. Forbes, executive vice-president, Consolidated Edison Co. of New York, Inc., in conversation.



Edward M. Borger, president, The Peoples Natural Gas Co.; Charles E. Bennett, president, The Manufacturers Light & Heat Co. and of A. G. A.; and T. J. Strickland, vice-president, The Gas Service Co., chat informally during the Natural Gas Convention, Los Angeles

most advantageous single aspect of Association research is the much lower pro-rata individual cost—particularly to the small company."

About seventy well qualified and well known men from industry, equipment manufacturers, educational institutions and government bureaus comprise American Gas Association natural gas committees which meet throughout the year, he said. Their scope of operations includes "Gauging and Controlling Combination Gas and Oil Wells;" "Productivity of High Pressure Oil and Gas Wells," and related topics such as removal of nitrogen and water which hamper natural gas pipeline flow.

Among organizations active in gas research, mentioned by Mr. Zachry in addition to individual natural gas transmission companies and utilities, are the United States Bureau of Mines at Amarillo and Bartlesville; The Bureau of Standards, Washington; the U.S. Naval Boiler and Turbine Laboratory, Philadelphia; the University of Ohio, Athens; The American Society of Mechanical Engineers, New York; The Institute of Gas Technology, Chicago; and the A.G.A. Laboratories, Cleveland and Los Angeles.

This trio of speeches concluded the first general session

at which the Honorable Fletcher Bowron, Mayor of Los Angeles, welcomed delegates to the sunshine mecca. Presiding over the session was Frank C. Smith, chairman, Natural Gas Department, and first vice-president, Houston (Texas) Natural Gas Corporation.

Tremendous expansion of the basic steel industry, reaching more than 120,000,000-ton capacity by the end of 1953, was foreseen by Alden G. Roach, president of the Consolidated-Western Division, Los Angeles, and the Columbia-Geneva Steel Division, San Francisco, and R. W. Seely, vice-president of Consolidated-Western. Both firms are subsidiaries of U.S. Steel Corporation. In a joint discussion they indicated that approximately four percent of this expanding steel production will lengthen the nation's fast-growing natural gas and oil pipelines.

These estimates are subject to change, as plans for prospective projects and expansion programs are altered, abandoned or new projects appear, they said. Although natural gas and oil pipeline requirements for 1953 stand at 4,300,000 tons, said Messrs. Roach and Seely, the government now is rationing these industries at the rate of 3,600,000 tons a year. Nevertheless, an encouraging sub-



The meeting of the A. G. A. Technical and Research Committee, Los Angeles, May 11, was presided over by Chairman Elmer F. Schmidt

stantial increase in basic steel production which should produce more plate for pipe was predicted.

"Currently, there is no apparent plan for further expanding pipe mill capacity for 30-inch high strength pipe," they went on. "Possibly some mills may be retooled for larger or smaller sizes, but in the main it is doubtful whether there will be much change in capacity in the near future. A survey of the gas industry indicates that the probable requirements during the next 18 to 24 months will be well within existing capacity."

Rapid expansion of the natural gas industry will require 2,500 new supervisory and management employees during the next ten years, declared F. O. Rouse, consultant of Commonwealth Services, Inc., New York. Utility companies and business management have a big job ahead since the natural gas industry has doubled in size within a decade, he noted.

Shortages of technically-trained and experienced general management men, he said, are compelling business to train and re-train the employed specialist to develop him as a generalist—a top management man. Fewer than half the number of engineers needed in industry and government will be graduated by engineering schools during the next five years, Mr. Rouse continued. As a result, he said, companies will have to utilize their present employees more efficiently. Business, he went on, must make a determined effort to develop its own technical and management talent to compete successfully.

These thoughts were addressed to the natural gas industry which now employs more than 135,000 people with a total payroll beyond \$500,000,000. To control and manage properly, he concluded, it will be necessary to spread the responsibility for successful operations. He said this could be accomplished by decentralization and planned "custom-made" training of promising employees in the art of management.

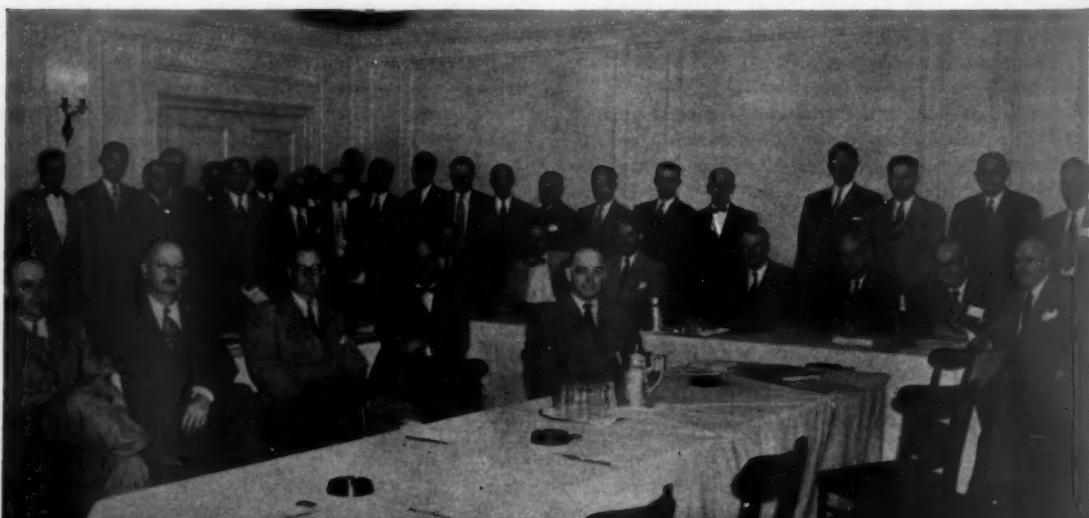
Granted, some of the problems facing the natural gas industry, other than manpower, are finance, material availability and gas, said Stanley H. Hobson, president, George D. Roper Corp., of Rockford, Ill. "Knowing this is on your minds 24 hours a day," he said, "I readily can understand why the problem of appliance sales-advertising, promotion sales training, service training and appliance profit may get very little of your time."

Speaking on "Who Wins?" he went on to say, "While the importance of selling and good salesmanship have been relegated to the background, because of the magnitude of other problems, I hope none of you will much longer continue to be unmindful of the fact that selling and the capturing of your domestic market is foremost in the minds of the electrical industry."

Despite conferences and meetings, he said, definite action is yet forthcoming to answer the question, "What can a utility do for a manufacturer and what can a manufacturer do for the utility to keep our domestic sales at a high level?"

(Continued on page 50)

Chairman Fenton H. Finn presided at the May 10 meeting of the Committee on Underground Storage, during the Natural Gas Spring Meeting



The natural gas industry, now providing over a quarter of U. S. stationary fuel requirements, promises continued sound growth

Solidity and vigor keynote gas

By CHARLES E. BENNETT

*President, American Gas Association
President The Manufacturers Light
and Heat Co.
Pittsburgh, Pennsylvania*

Natural gas has stimulated individual initiative to a high degree, in years when individual initiative was becoming a commodity of declining proportions. The merits of natural gas have been sensed by a giant segment of the American people. Sales of natural gas as a domestic, commercial and industrial fuel are being made today in a volume undreamed of only a few short years ago. The steady growth that will take place in the next decade will surely make the natural gas industry one of the greatest industries this nation has ever seen.

Today natural gas is spectacular. Our physical size, total investment, public acceptance and giant sales volume make an impressive showing in any study of the country's economic life. We have seen the number of meters serving natural gas grow to nearly eighteen million in 1951. This is a thirty percent increase since 1949. It does not include the number of meters serving mixed gas of which natural gas is a part. This service would add more than three million meters. There are no signs indicating an immediate slowdown in change-over to either straight natural or mixed gas.

As we look into the crystal ball, is our vision distorted when we estimate that the day is not too far off when nearly every gas meter in the country will be

busy at work clicking off measured quantities of either natural gas or a mixture containing it? We will continue to be spectacular. But, there is another side to the picture. Of the greatest importance to the entire gas industry and to all of us who make it our living is the unifying effect of natural gas.

With the rapid expansion of long-distance transmission lines to serve large distribution centers, many new problems appeared on the horizon, such as the economy of a high load factor; dual regulation; new peak load requirements; pipe shortages; customer demands for undreamed of quantities of gas. In the mad rush of business, the pipeline companies had their own specific problems. The distribution companies were faced with theirs. But, the interdependence between producers, transmission companies and distribution companies remains axiomatic. They are all partners working together for a common enterprise.

Financially sound expansion

We have seen many new enterprises flash across the horizon during the years since the end of the second World War. Anyone who is impressed with how fast they rose should also take a look at how fast they fell. Is this where the natural gas business is heading? I would say no, positively no! Our growth and expansion, while rapid, have been carefully controlled and have lasting qualities.

In the last two calendar years, sales of natural gas increased by more than thirty-six percent. It is almost unbelievable to us old-timers in the business that nearly forty-five billion therms of natural gas were sold in 1951.

Scientific American in its "Natural

Gas" review of November, 1951 brought natural gas industry statistics up to date when it reported, "Natural Gas in 1950 supplied nearly a fifth of the nation's total energy consumption from all commercial sources. It would have accounted for a much higher percentage if it had been available everywhere in sufficient quantity to meet the expressed demands for it."

This analysis is good. But it does not give the complete or true energy picture. We have been comparing natural gas figures against coal and oil figures for those fuels that are used in ships, on railroads, to power airplanes and highway trucks. But natural gas is not competitive with these mobile uses of coal and petroleum. If we deduct such mobile uses from the coal and oil totals, the 1950 figure jumps from 18.7 to 27.3 percent of the nation's energy consumption supplied by natural gas. This means we of the natural gas business are today serving well over one-quarter of the stationary, competitive energy requirements of the United States. We are constantly seeking to increase this load still further.

In 1951, revenues from ultimate consumers rose more than 52 percent compared to 1949, to reach nearly \$1.7 billion. To make it more emphatic, these figures do not include the natural gas that is mixed with manufactured gases.

The vast construction expenditures amounted to more than \$2.5 billion during 1950 and 1951. More than two billion dollars of new securities were issued in 1950 and 1951. The net increase in proved reserves in the last two years has been nearly 13.5 trillion cubic feet. This is a tremendous increase in the great pool of gas which guarantees our

Abridged version of an address delivered before the A.G.A. Natural Gas Department Spring Meeting, Los Angeles, May 12-13, 1952.

industry's future. What has been done, and what looms up in the immediate future, is the direct result of the loyal and faithful work of those who have built this great natural gas industry.

But we of the natural gas business cannot slip into a self-satisfied frame of mind. We dare not become too complacent. Natural gas has gone whole hog in replacing manufactured gas. Now is the time to stop, look and listen!

Mounting success always brings with it increased responsibility. The natural gas business must shoulder a far greater responsibility today than ever before. We have accepted the plaudits of the magazines and newspapers; we have modestly admitted our capacity to do an even better job in the future.

We are somewhat like the side-show performer who comes out to the barker's platform on the midway. A brief preview performance is put on—just a taste or a promise of what's to come. Then the crowd moves up, buy tickets, and enters the tent to see whether the promise is fulfilled.

Now that we have planted ourselves in the thinking and life of the American public, can we perform as they have been led to think we can and as the public expects?

Through the years the operating gas companies of the nation gained acceptance as local institutions. They manufactured their product and sold it in rather limited franchised areas. The gas company was strictly a local institution. Customers accepted it on that basis.

But an expanding network of pipelines stretches across the country. During periods of restrictions on house heating sales, gas companies told their customers that the lack of gas was not entirely a local situation. All our customers had to do was to read the newspapers to see that the "gas shortage" was almost a national situation.

Growth brings appreciation

The public now senses that gas service is not entirely a local function. They have learned it is a big industry. The coal barge or the oil tanker that slowly brought supplies up to a manufactured gas plant never caught the public's imagination as being a vital part of an industrial enterprise which was dedicated to delivering a clean and economical fuel to their homes, stores and industries.

It is different today. Consumers, the public in general, investors, legislators and regulatory bodies look upon cross-

country pipelines, producing fields, and storage reservoirs as real, live adjuncts to the low-pressure street mains, service lines, and domestic meters they have known all their lives.

Make no mistake about it, the public does not show any resentment to big gas systems. In fact, the public has expressed pride in the enterprise and accomplishment of the natural gas business that has brought gas from far-distant producing fields to their kitchens and furnaces.

We gas men have divided into groups according to our interests and responsibilities. But we must not forget that the public neither knows nor understands our familiar terms of "production," "transmission," and "distribution." To them gas service is a single enterprise. We must adjust our sights and consider gas as a single responsibility.

We have, in general, met these and other challenges. We can never afford to let our guard down, or to shirk the great responsibilities imposed by our present size and spectacular performance. We have three responsibilities of about equal importance. They are, service, unification and integration and safety.

People want service. Some seek service from the ward alderman; others demand

(Continued on page 56)

Convention program includes many vital topics

A wide range of subjects, interesting to every segment of the gas industry, is the goal of the subcommittee arranging the program for the 34th A. G. A. Annual Convention. The Convention will be held at Atlantic City, N. J., October 27-30.

Financing is a most important subject to the gas industry. At the general session on Monday, in addition to the address given by the A. G. A. president, an eminent speaker from financial or economic circles will bring delegates an outside view of gas industry financing.

Sales promotion is vital to gas utilities and to gas appliance manufacturers. On Tuesday, delegates will be fully informed of the sales promotion activities being conducted under the A. G. A. PAR Plan.

Sales volume is not the only mutual goal of both gas utilities and manufacturers. Other subjects on the general sessions program for Tuesday will be "Coordinating Objectives of the Utilities and Manufacturers" and "The Place of Gas

"Present and Future." Here also, informed speakers are scheduled to handle these subjects.

Public relations will be one of the important topics at the general session Thursday morning. Gas utilities are aware of the necessity of public approval of their policies and practices. An industry speaker with an established reputation in the field of public relations has been selected to talk on this subject.

In a parallel vein the gas industry's relations with government should be of major interest to all delegates to the Convention. State and federal regulations will be discussed on Thursday by a representative member of one of the regulatory commissions, or someone equally qualified. The general session program on Thursday will be rounded out by an inspirational address by a speaker of national prestige on a subject of broad interest.

The subcommittee planning convention program is comprised of F. A. Lydecker, vice-president, Public Service

Electric & Gas Co., chairman of the General Convention Committee; Frank H. Trembley, Jr., vice-president, The Philadelphia Gas Works Co., and Jesse L. Johnson, vice-president, Providence Gas Company.

The Gas Appliance Manufacturers Association reports that the exhibition which will be staged in conjunction with the Convention will be the largest display of appliances and equipment in the history of the gas industry. The demand for space has been so great that an additional 3000 square feet of floor space, never used before in any exhibition, has been made available to members of GAMA. This establishes a record of 75,000 square feet.

The A. G. A. Housing Bureau reports that to date more than 3,500 hotel accommodations have been assigned. A prediction has been made that more than 10,000 gas utility and gas appliance representatives, dealers and guests will attend the Convention.

*With mill capacity 20 times greater than in 1947,
sufficient large diameter high-strength pipe seems assured*

Steel for the pipes of plenty

By ALDEN G. ROACH

President

and Ralph W. Seely

Vice-president & assistant to
president, Consolidated-Western
Steel Division, United States Steel
Company

One of the major problems of the gas industry has been the availability of steel pipe for the transportation and distribution of natural gas. Since both the steel and gas industries are seriously concerned with this problem it would appear helpful for both to reappraise it periodically in the light of existing and anticipated conditions.

In recent years there has been a sharp increase in requirements for tubular products and the demand has exceeded the supply.

One of the principal reasons for the sharp increase in pipe requirements has been the double burden of accelerated general industrial activity and the national defense program. Another major factor has been the increased emphasis on long distance transportation of natural gas from areas where large reserves are found to centers of population. One might conclude at this point that the tightness in the supply of pipe and tubular products resulted from lack of expansion of production capacity. On the contrary, the record shows that there has been rapid growth in both the capacity for producing pipe and the capacity for producing the basic steel from which it is made.

Abridged version of a paper delivered before the A.G.A. Natural Gas Department Spring Meeting, Los Angeles, May 12-13, 1952.

A brief review of the progress made during the past few years will substantiate this point and form a basis for consideration of the future. For this purpose, the subject may be divided into three parts: (1) a review of the large-diameter segment of the pipe industry; (2) a look at the trend for the entire pipe industry; and (3) a few comments on line pipe, one of its major phases.

The development of pipe production facilities for extending the diameter of high-strength pipe to 30 inches and beyond was accomplished only in the last few years. The impetus for this development came from the gas industry, which was quick to realize that substantial economies could be effected by use of larger diameters for transporting the tremendous volumes of gas needed in distant areas.

Large growth in five years

The first 30-inch diameter high-strength pipe was produced late in 1946. The first gas pipeline system to utilize 30-inch pipe was installed in 1947, only five years ago. It consisted of 60,000 tons, 214 miles connecting the Southern California-Southern Counties Gas Companies' systems with that of the El Paso Natural Gas Company. Today there is approximately 2.3 million tons and 7,800 miles of 30-inch diameter and larger high-strength pipe in service in the United States. In addition, there has been installed almost 2,000 miles for oil transportation in foreign countries.

Growth in pipe mill capacity for producing 30-inch diameter and larger high-strength pipe during this same period has exceeded the increase in its use. In 1947,

there was only one pipe mill in the United States toolled for production of 30-inch diameter pipe, namely Consolidated Steel Corp. (now Consolidated Western Steel Division of the United States Steel Co.) located in Los Angeles, with a capacity of about 100,000 tons per year. Today there are numerous pipe mills scattered throughout the United States equipped for this type of production. The total capacity now is about 2,000,000 tons per year.

Currently, there is no apparent plan for further expansion of pipe mill capacity for this size and type of pipe. Possibly some mills may be retooled for larger or smaller sizes, but in the main it is doubtful whether there will be much change in capacity in the near future. A survey of the gas industry indicates that the probable requirements during the next 18 to 24 months will be well within existing capacity. Of course, special circumstances, such as two or more major projects in the same general area, scheduled to proceed simultaneously, conceivably could overtax the capacity of certain mills and cause isolated cases of tight supply. A shortage, however, is more likely to result from inability to secure steel plate at a rate sufficient to meet the requirements of the pipe production schedule, but even this does not appear to be a serious threat.

During most of the past 25 years the production of tubular products has been substantially below rated capacity. There has been a general upward trend in both capacity and production, so that the relationship between the two has been well maintained. Certainly, for the period prior to World War II actual experience

verifies that, in general, tubular products were available as required.

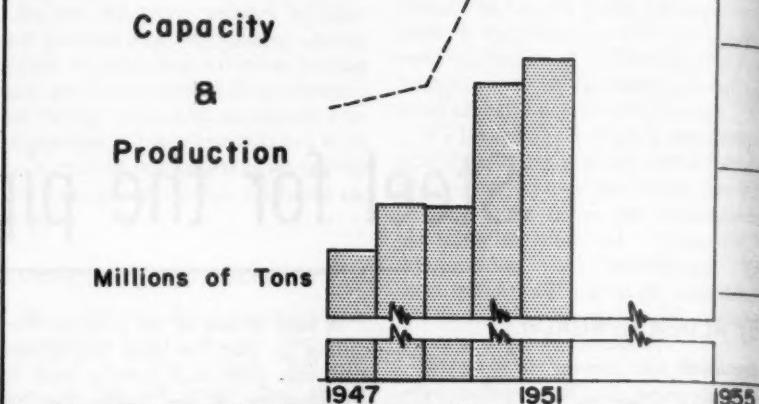
During the past few years the upward trend of both the rated capacity and the rate of production has increased sharply. Even during this period, capacity is still shown to be well in excess of production. Hence, one might logically conclude that at least on an over-all basis the supply should have been adequate.

A gas utility man's reaction to this conclusion is probably about the same as that of a housewife attempting to cook breakfast on a very cold morning when the gas pressure is low, and who, in reply to her complaint, is told not to worry because there is plenty of reserve gas in the ground a thousand miles away and an adequate pipeline to transport it to her house. Quotation of statistics cannot compete with reality. We all know that during the period just passed the supply of pipe has been tight. This paradox may be clarified by consideration of two factors; first, the interpretation of production capacity figures, and second, the effect on pipe production of basic steel supply. The rated capacity of pipe mills must be based on production of an assumed product mix, usually an average. Actually there is substantial variation in the tonnage output of many mills, depending on the type of product being produced.

Experience indicates for a mill producing pipe from plate that the capacity is basically limited by the number of pipe sections which can be produced per day regardless of the diameter and wall thickness. For example, consider a mill with a capacity of 600 miles per year. If this mill produced 34-inch OD x 1/2-inch wall pipe for one year (600 miles) its capacity in tons would be close to 300,000. On the other hand, if this mill produced 24-inch x 1/4-inch wall pipe for one year its capacity in tons is about 100,000 or only one-third as much. However, the rated capacity for this mill could be 250,000 tons per year based on the average of the types and sizes of pipe produced in the past.

From this it can be seen that rated capacity may be very different than the capacity to produce specific sizes of pipe. It is quite possible that the summation of all rated capacity for pipe may have been somewhat in excess of the actual total capacity to produce the type of pipe required during the past year or two. Hence the apparent margin between rated ca-

STEEL TUBULAR PRODUCTS



Rated capacity and production of steel tubular products have increased sharply

pacity and actual production may not exist to the extent shown.

The other factor to be explained, when reviewing the pipe picture for recent years, is the availability of basic steel. If the demand for all rolled steel products exceeds the availability of steel ingots from which they are produced, it follows that the production of tubular products, along with that of others, may be held well below the potential capacity of the tubular mills. The relationship between production of steel ingots and the rated capacity for production during the past 25 years is quite similar to that for tubular products. In contrast to tubular products, capacity for steel ingot production can be accurately determined in tons per year. For the most of this period, with the exception of the World War II years and the immediate past, there was substantial cushion between the capacity to produce and the demand, as represented by the actual production. You will note that this relationship was maintained even though the trend was generally upward. However, during the past few years the upward trend of production has increased more rapidly than that of capacity until production has equaled, or even exceeded, rated capacity in recent months. This condition can only result in a short supply of steel products in general, which we have been experiencing.

It seems clear, then, that the availability of tubular products as a whole is

dependent not only on the capacity for production of tubular products but also on the capacity for the production of steel ingots and the demand for those ingots. Therefore, in attempting to predict the probable over-all availability of tubular products during the next 18 to 24 months, it will be helpful to scrutinize in a little more detail the trend of these relationships during the past few years and the projection of planned capacity expansion for the next two years.

In 1949 the production of steel ingots was well within capacity, and there was little difficulty in securing most steel products during that year. In 1950 demand for steel products was stimulated by fighting in Korea and production was pushing hard on capacity. In 1951 the added defense program really got rolling in addition to a very active domestic economy, and the demand exceeded capacity. Steel was rationed under government direction.

We are now in the midst of a tremendous expansion of the basic steel industry. The present announced program is scheduled to reach a capacity in excess of 120,000,000 tons by the end of 1953.

The expansion of steel capacity during the past decade enabled successful prosecution of a global war. It has also kept pace with an even greater demand in the post-war period resulting from an unforeseen pent-up demand for civilian goods. True, there were shortages during

this latter period but no widespread hardships, and even those shortages could have been partially eliminated had we not lost substantial quantities of steel due to strikes.

It is important to remember that the steel industry operated at substantially less than capacity for many years. The difficulties of profitable operations under such conditions are, perhaps, not readily apparent but none the less very real.

To increase the capacity for production of steel requires very large capital investment involving construction of mining facilities, ore boats, railroad cars, coke ovens, blast furnaces, open hearths and rolling mill facilities. In the face of past history and of new economic conditions which require even higher operating ratios to maintain a reasonable profit the expansion record established by the steel industry speaks for itself.

During the next two-year period not only will steel capacity increase but so will that for production of tubular products. Thus, it seems reasonable to conclude that with more steel available and more capacity to convert it into pipe, the availability of tubular products should improve. In spite of this, in isolated instances, circumstances may prevail which will continue to cause shortages. In any event, there is substantial planned expansion of capacity for production of both steel ingots and tubular products.

Line pipe is a major category within tubular products as a whole. It is of particular importance to the gas industry. It is defined rather loosely as pipe which is used for the transmission and distribution of gas and liquids. Because of its importance to the gas industry and because its supply has been quite tight during the past few years, the possible future availability is worthy of special consideration.

The production of line pipe should be considered in relation to the production of all tubular products. Production increased sharply over the past few years with the exception of last year, 1951, which shows a decrease even though production of tubular products as a whole increased during this year. The primary reason for this is related to the heavy defense requirements for plates. The government directed a substantial portion of plate production to meet other requirements. Since a considerable portion of line pipe is made from plate the net result was a reduction in the production of line pipe.

For the future a recent estimate indicates a requirement for approximately 4,300,000 tons of pipe in 1953 for petroleum and gas, both domestic and foreign. Such an estimate is at best only approximate and subject to change as plans for prospective projects and expansion programs are altered or abandoned or new

projects appear. Compared with this prospective requirement for 1953 of 4,300,000 tons, the government is currently rationing pipe for oil and gas at the rate of 3,600,000 tons per year. If this is continued it would point to a tight supply of line pipe in 1953. However, the capacity for producing basic steel will be increased substantially by 1953. Without examining capacity and demand for plate in detail it can be stated that with an increase in steel ingots and if necessary further adjustment in the coordination between sheet mills and plate mills it is reasonable to expect an increase in the production of plate. The output of mills producing pipe from plate can easily be increased. It seems clear then that the availability of line pipe for gas and petroleum should increase over the next 12 to 18 months, provided there isn't an unforeseen surge in the defense program nor an extensive non-recoverable loss of steel due to strikes.

The problems vary to some extent but, assuming no major unforeseen changes in our economy, the general outlook of availability is encouraging. The planned expansion of capacity for production of pipe appears adequate. This is on a sound foundation since steel ingot capacity is also increasing and in all probability more plate will be available for pipe. All of this indicates an increasing supply of pipe during the next 12 to 18 months.

Prepare revisions for gas clothes dryer standards

Recommended revisions to the American Standard for gas clothes dryers have been prepared for industry criticism by the Subcommittee on Approval Requirements for Gas Clothes Dryers. Comments received from the industry will be considered by the supervising subcommittee at its fall meeting. Adoption of these revisions by the subcommittee, and in turn by the A.S.A. Sectional Committee, Project Z21, A. G. A. Approval Requirements Committee will enable designers of gas clothes dryers to incorporate the numerous features covered in their approved 1954 models.

The confining of the provisions to cover only domestic clothes dryers of conventional rotary design is proposed. Additions have been recommended to permit the testing of clothes dryers with

exhaust ducts of lengths specified by the manufacturer, but of a length not less than 14 feet, including two elbows. Air discharged from the drying chamber entering the exhaust duct under adverse conditions of operation is limited to 250 F. This permits field installation in conformance with the provisions of the Standards of the National Board of Fire Underwriters for the installation of air conditioning, warm air heating, air cooling and ventilating systems, NBFU Pamphlet No. 90. Such exhaust ducts should not be confused with flues or vents for conveying flue gases, such as are used with conventional gas appliances.

Extensive tests, under conditions simulating breakage or motor stoppage, blocked lint screen and blocked cabinet openings are proposed. These

tests will check the operation of the mandatory high-temperature limiting device. Maximum warm air temperatures contained within the drying chamber during normal operation are limited to 200 F. and a non-scorch test is proposed to assure customer satisfaction.

A revised drying load in conformance with that employed by the dryer industry has been proposed. Also proposed are tests for drying performance, and wall and floor temperature test procedures to provide for close clearance installation. Other additional features cover surface temperatures, ignition and control systems and high altitude performance as well as mandatory use of appliance regulators and fixed orifices.



Sideboom tractors lift a 800-foot section of concrete-clad, 24-inch natural gas pipeline on to the small flat cars that will carry it down the narrow-gauge track to the shoreline of the Narrows. Chocks hold the pipe in place on each car



Heavy-duty truck tires guide and support the pipe between flat cars and water



New York's skyline and its busy harbor provide a dramatic backdrop for the pipeline project.

Sea traffic delays pipeline

A mile and a quarter of 24-inch, cement-clad natural gas pipeline was started on its submarine way under the Narrows of New York Harbor, May 5, to set some new records in a field that has become spectacular in goals attained and surpassed.

But after months of careful preparation, and days of smoothly flowing under-water pipe-laying operation, something new and disheartening was added on May 8: When the line was within 1,600 feet of its destination the cable snapped. Subsequent efforts to move it with a new and stronger cable proved futile and investigation showed that a leak had developed, the pipe had filled with water and the increased dead weight had caused the cable to break. To repair the damaged section the whole process was reversed and, starting May 27, five thousand feet of laboriously installed pipeline was drawn back to the shore

from which it had been pulled.

The crossing is being made by Transcontinental Gas Pipe Line Corp. to provide a second entry for Gulf Coast natural gas into the New York City area. It is the longest—6,600 feet—and deepest—maximum over one-hundred feet—under-water crossing in Transcontinental's 1,840-mile Texas-to-New York system. King-size setbacks are in keeping with such a record-breaking undertaking.

The crossing was made more difficult by strong tidal currents. Operations were further complicated by harbor traffic in the Narrows—one of the world's busiest water highways. To guard the under-water pipeline against damage during the laying period, two picket boats were kept constantly on duty warning passing ships from dropping anchor nearby. Nevertheless, it is assumed that a dragging anchor caused the damage that opened a leak in the exposed pipeline.



A dry dock for the underwater pipeline laying operation



The second section of the Narrows Crossing pipeline is welded to the first section, seen already projecting into the water. Pipe is supported on flat cars until the track sinks away, in the right background, and swings off to the side



The pipeline flows smoothly from shore to water depths over the pipe launcher

and let it fill with water.

Preparatory to the pipe laying, an underwater trench was furrowed out, 25 feet below the bed of the Narrows, from the foot of Clifton Street, Staten Island to Shore Parkway and 92nd Street, Brooklyn. Eight sections of 24-inch pipe, averaging eight-hundred feet in length, of one-half inch wall thickness and coated with three inches of Somatic coating and Hevicote concrete were assembled in Clifton Street, Staten Island, at right angles to the channel. The pipe weighs 561 pounds per lineal foot, including the protective coating.

As each section was made ready for pulling into the water, air-filled pontoons, 38 feet long and five feet in diameter, were affixed by saddles and metal strapping. The pontoons kept the pipe from dragging bottom and controlled its progress through the trench. Affixed at an average of every 100 feet,

66 pontoons were used in this, the first time that the "controlled buoyancy" method of pipe laying has been used in an underwater crossing of this size. After the line has been pulled across, the tightening of an auxiliary cable will activate the release mechanisms on the several pontoons and they will rise to the surface to be retrieved.

Another innovation in pipeline crossing was the use of the hydro-pneumatic multi-differential self-stabilizing pipe launcher to slide the pipe into the water. This huge machine is in two sections. One section, floating offshore and buoyed by pontoons to allow for the tide, is hinged to the land-situated major section. The latter section supports a cantilever "see-saw" which adjusts itself to the movement of the pipe from the shore. In each section the moving pipe is cradled in rotating heavy duty truck tires.

At the time the cable snapped the

pipe was within 1600 feet of the Brooklyn shore. Divers were sent down to affix two cables, one of $2\frac{1}{8}$ inch diameter, one of $1\frac{1}{4}$ inch. When pulling was resumed the pipe refused to budge, and at first it was thought silt had flowed into the trench and created a strong suction. In a vain effort to overcome this, additional pontoons were affixed to increase the positive buoyancy and break the suction. Subsequent investigation by divers disclosed the break.

On the Brooklyn side of the Narrows, the new pipeline will tie into the city-wide, interconnected distribution network of the five local utilities that purchase natural gas from Transcontinental Gas Pipe Line Corporation. On the Staten Island side it will connect with the eleven-mile spur line which crosses Arthur Kill and joins the company's main Texas-New York line at Linden, N. J.

The quality of service a customer receives will affect his decision when he selects a new appliance

Make service a potent salesman

By RICHARD B. BARGER

*Assistant General Superintendent
In charge of customer service
The Hartford Gas Co.*

In the gas business, service is essential to sales and safety. All of us in the gas industry have recognized this over the years. But it falls in the category of an elective expense, like insurance, and when over-all expenses rise and earnings are affected, management logically turns a critical eye to such type of expenses.

Gas utilities have a unique service problem. The combustion process, for all of its advantages in supplying heat energy, is a relatively unstable reaction, the continued safety and efficiency of which depends upon the maintenance of a reasonably constant quality and flow of gas, adequate air for combustion and venting, and reliable ignition. Even with constant characteristics of the fuel, which is a goal not reached by most eastern utilities at any rate, occasional expert burner adjustment service is required because of other combustion interferences that normally develop. The absolute necessity for adjustment service increases if any variations in the characteristics of our fuel are imposed upon the appliance. We also have an unusual advantage and hence obligation in that we are the only suppliers of a combustion fuel that are so closely wedded to the customer in that we alone control the quality and quantity of fuel delivered to them. Customers who have enjoyed good performance from their appliances are most apt to buy new equipment using the same fuel, and to recom-

mend it to their friends. The constant battle for business is definitely fought on the home front in the gas business. Assuming adequate promotional activity, the winner is the one who gives the overall best appliance performance at reasonable rates. Cheap fuel costs alone, even with the best of gas appliances, does not



Richard B. Barger tells why a utility should accentuate customer service by its own staff

of itself hold the business. Service must be there too, and it must be good service.

It is essential to the welfare of the gas business (and the stake of the combination company in it) that service be available in the gas rate or at direct costs so reasonable that customers will not hesitate to ask for it when needed.

Comparative discussions about service policies are sometimes confused by a lack of common understanding as to just what type of service function is being talked about. The phrase "meeting customer requirements" comprises the handling of

requests and inquiries from customers regarding the use and maintenance of gas and gas appliances. In a broader sense, it also involves seeing that the customer gets the best possible fuel delivery, appliances and guidance for the efficient and safe utilization of gas. The field functions of appliance service can be considered as: "burner adjustment service" (gas and air adjustments); and "appliance adjustment service" (adjusting controls, lubricating valves and making inspections). These two can be grouped together as "adjustment service." There is also "appliance lighting and turning off service" (for automatic gas appliances) and "appliance repair service" (work normally involving part replacement and repair). Lastly "emergency service," is the prompt response to any premises emergency reported to be associated with gas.

There are two schools of thought on how to give basic burner adjustment service to domestic gas customers; either the work can be done through the utilities own employees or it can be turned over to others to do. All straight gas utilities known to the author perform this basic burner adjustment service themselves as do the majority of combination companies. It is a mistake to turn this basic service requirement of customers over to others to do, as it is entirely too important to us to permit it to be handled by outside agencies who simply cannot have the same vested interests in the problem as we do.

Burner adjustment service by utilities is cheaper, better and quicker for customers. To a large extent, appliance adjustment service and appliance lighting service, which are closely allied with

Abridged version of an address before the annual convention of the New England Gas Assn., Boston, March 27-28.

burner adjustment service, are subject to the same logic. If the utility performs the basic service, the others logically follow if divided responsibility is not to exist. The same is not so generally true of appliance repair service. The handling of prompt adjustment light-up and inspection service requires essentially only manpower and "know-how." To give prompt appliance repair service, however, specific parts are required. Customers can get better and quicker appliance parts service from dealers because of the multiplicity of special parts, except perhaps in the smaller companies, and also where appliances are merchandised by the utility. Dealers and appliance manufacturers usually have the same inherent product protection interest in their appliances as do utilities in the use of their fuel, so gas customers are well served by them. It is in the customers' best interests however, if the utility follows up on all calls referred to outside agencies to make sure that the customers' needs are taken care of, and within a reasonable time.

Charge plans vary

Customer service by utilities is often looked upon by management as an expensive item. Gas appliance adjustment service always has been and probably always will be necessary and it is going to be had and paid for by the customer, no matter how the utility handles it. A few companies charge individual customers for everything except emergency service by charging for the work they do or by referring all such work to outside agencies. Many others have given "free" emergency and basic burner adjustment service, but have charged for all other appliance services.

Practically all straight gas companies have a complete "free" (included in the rate) appliance adjustment service with the exception of parts repair service. On this latter service, policies vary from partial charge to a profitable charge. There are of course several shades and variations of these policies depending principally upon the local competitive situation. Partially free or wholly free parts replacement service beyond the warranty period is strictly a promotional service practice and simply denotes that the management of the utility offering such service has elected to place some promotional dollars in that direction.

The best way to evaluate service costs from the utility policy making viewpoint is to express them in terms of what the

customer pays for service in their gas bill, similar to the way in which other expenses are expressed in per thousand cubic feet and per therm. A range customer in Hartford, for example, pays an average of about five and one-half cents per month for complete service, except appliance repair service, based on figures developed about six months ago. This figure includes all overheads and materials, and is somewhat higher than a comparable figure from another straight gas utility operating under a similar service policy. It is higher due to the seasonal fluctuations in gas composition that we experience, which illustrates the important point that a goodly number of customer complaints are of our own making.

Such a figure is very reasonable for the customer protection and satisfaction received. Each customer does not get her own proportionate share of service thus paid for, but there is no doubt that the customer would prefer to continue paying us this modest "service contract fee" rather than a pay-as-you-get-it scheme. Service in the rate is akin to service maintenance contracts offered on many classes of competitive appliances, and this insurance type of technique has received great public acceptance. The gas industry goes this idea one better by concealing this "insurance" in the cost of the fuel.

Further figures developed from our operations illustrate that adequate service costs customers only pennies in their monthly gas bills. The average gas refrigerator customer pays us 13 cents per month for service and the average automatic water heater customer pays 15 cents. As before, these figures include all overheads and materials, but do not include any appliance parts service work, which we perform on a charge basis for labor and material at break-even rates. Of themselves, these figures are of value only insofar as they indicate the order or magnitude of the over-all cost to the customer or company for a service policy adequate to protect our loads and minimize utilization hazards and accidents.

Much has been said about the abuse of "free" service by customers. As one service manager expressed it, this can be likened to the operation of a private club. When the club is not meeting expenses the first thing considered is the raising of the dues. The members, of course, do not go for that any more than our customers would if we tried to raise the rates for gas. Then the club's board of trustees tries to analyze the spots where some sav-

ings in operations might be accomplished. They point out that some fellows use two or three bath towels in the showers where they would normally use only one in a week if they had to pay the cost of the laundry. Therefore, a charge of some kind should be introduced for the towel. It goes on from there, but finally winds up in an increase in the dues. It seems to be the same in appliance servicing. There is no reason why a company should curtail the ordinary necessary services just because there are some few people who take every advantage of anything that is provided "free." This would not be fair to the vast majority, and, to carry this little analogy one step further, would probably result in the breaking up of the club.

There is another way to look at servicing costs. How much would it cost if utilities did not have "free" service? A considerable portion of the money saved on the surface would be spent on claims, high bill adjustments and in building up promotion to offset the adverse customer relations engendered by accidents and other results of inadequate servicing. As one gas company service man said, "it would be like handing over our load to electricity on a silver platter!"

Minimize fuel changes

In recent years, gas customers in New England, and in many other areas as well, have suffered inconveniences due to seasonal changes in the characteristics of the gas delivered to them. Despite efforts made by many companies to minimize this as much as possible by interchangeability controls, the cost of these variations as reflected in service calls has been considerable. The advent of natural gas with its inherent uniformity and purity will, from this angle alone, materially strengthen our fuel acceptance during the years immediately ahead. However, it is extremely important that we study out our future fuel growth and make every practical effort to see that it is met with completely interchangeable and uniform fuels if adequate supplies of natural gas are not available.

Customer service departments of some companies have been delegated the responsibility of setting and maintaining these standards of interchangeability. They maintain sample burners on the sendout gas, and hold production responsible for a maximum variation permissible in the performance of these burners.

The net result of this is that production expenses are the first to give when utilization is affected. There are, of course, practical limitations that must be applied to such a procedure, but it is a big step in the right direction toward the close intra-company team work necessary to approach our ultimate goal of a uniform gas. The handling of odorization is likewise a problem that can best be controlled by close correlation with customer service records.

Minimizing gas utilization pressure variations by careful maintenance and development of the distribution system is another big factor contributing toward reduced service calls. Here again the customer service department can assist by augmenting the pressure records of the distribution department with systematic surveys of pressures at customers' appliances during strategic hours of the day or week. Customer service departments are also in a logical position to maintain field testing points to evaluate in conjunction with customer complaint records, migratory distribution system disturbances before they become major.

As more and more automatic appli-

ances have been added to our lines, it has become increasingly evident that appliance design materially affects servicing frequency, and hence costs. The basic safety of appliances has been assured over the years, insofar as design and construction are concerned, by the unparalleled work of the American Gas Association Laboratories with their able Approval Requirements Committees comprised of representatives of appliance manufacturers and utilities. In recent years, more emphasis has been placed on serviceability by these requirements, and this important trend will be even more prevalent as automatic appliances develop in complexity.

Two new developments in the past decade or so have worked effectively in our behalf toward reducing service calls on new appliances. Domestic gas research, under the American Gas Association PAR program, has contributed immeasurably by the constant flow of timely research bulletins, particularly those aimed at reducing basic service problems in the design of pilots and burners. The other development is the active entrance into the appliance approval requirements

field of service managers groups, notably the Metropolitan Service Managers Council, an independent group meeting in New York City with representation from Mid-Atlantic and New England states. Developing appliance approval requirements based directly upon service experience, they have successfully upgraded the serviceability of house heating and water heating equipment coming into our territories. This was done by effecting changes in American Gas Association appliance requirements and the application of the so-called "Supplementary Utility Requirements." Another active utility group contributing toward the upgrading of appliance approval requirements was the New England Gas Association Appliance Study Committee.

The Philadelphia Gas Works Co. promotes the idea among its customers to keep the house heating pilots burning all summer. This met with such success in practically eliminating the fall light-up peak that it has been widely adopted by other utilities. This illustrates the direct effect service experience can have on appliance design, for now the

(Continued on page 52)

PAR Plan reports successful seventh year of operation

a PAR activity

The PAR Plan, the gas industry's cooperative program of promotion, advertising and research, sponsored by the American Gas Association, has completed most successfully, its seventh full year of operation, it is reported by Norman B. Bertolette, president, The Hartford Gas Co., and chairman, A.G.A. PAR Committee.

Mr. Bertolette told A.G.A. members that subscriptions for 1951, totaling \$1,623,317, were the greatest since the inception of the plan in 1944. Utility companies supporting the plan represented 72 percent of the gas industry.

Net expenditures for the year totaled \$1,603,559. Of this amount 11 percent was spent for sales promotion aiding gas utilities directly and in national sales campaigns, exhibits, and other promotional efforts. National advertising expenditures accounted for 51 percent. More than 250,000,000 printed messages on the advantages of gas service, appliances and equipment appeared in thirty-five consumer and thirteen technical magazines. Research expenditures uti-

lized 36 percent of the net. Research projects were directed in the fields of gas production, utilization of domestic, commercial and industrial gas and for natural gas production and transmission projects. About two percent was used for miscellaneous expenses in administering the PAR Plan.

A most significant accomplishment of the PAR Plan during its seventh year was the increasing extent to which gas utilities and appliance manufacturers coordinated their own efforts and participated in the industry's PAR activities, Mr. Bertolette said. Certain developments were achieved which will tend to facilitate more prompt and complete use of PAR research data in the development of improved gas appliances.

One-third more utilities participated in the 1951 PAR Old Stove Round Up than during 1950, and 90 percent of these purchased and used PAR promotional materials. Dealer participation also reached a new high. To encourage utilities in stimulating local dealer sales of gas appliances, a well-rounded program for the development of gas appliance merchandising by dealers has been

added to the 1952 PAR promotional program.

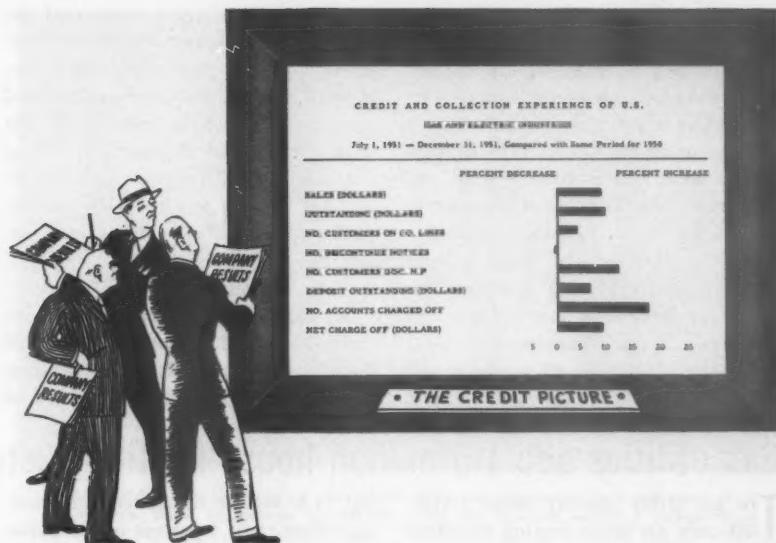
National magazine advertising of gas range manufacturers reached a new high in 1951, representing 84 percent of the magazine programs of competing electric range manufacturers. Gas water heater manufacturers again exceeded electric in use of national magazine space.

A new step in encouraging manufacturers to make more use of PAR gas utilization research data occurred last year. Research data indicated the possibility of substantial improvement in a commercial gas appliance. A prototype of the appliance was constructed utilizing this data and demonstrated to a technical seminar of manufacturers. This step was welcomed and a number of manufacturers are remodeling appliances to incorporate the new design data.

A PAR program to cost \$2,058,500 or 25 percent above the 1951 level, has been adopted by the PAR Committee and approved by the Executive Board of A.G.A. Research authorizations total \$705,900 and the sum of \$1,276,000 was allocated on a provisional basis to promotion and advertising.

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Credit and collection experience



This is the seventh in a series of semi-annual surveys of "The Credit Picture," conducted jointly by American Gas Association and Edison Electric Institute.

When utility collection men meet, their conversation quickly turns to the general problem of collections. It seems they neither tire of the subject, nor miss an opportunity to talk shop. They are constantly seeking fresh, first-hand information on methods used and results obtained by others.

The Credit Picture is the best source of collection statistics available, since gas and electric utility collection men cannot meet whenever they wish to get the current information they desire. The Credit Picture fills this need and the informa-

tion contained therein is quite comprehensive. It covers the credit and collection experience of a group of 61 companies throughout the United States serving approximately 38 percent of the total customers of both the gas and electric industries. This broad coverage offers factual data for individual companies to compare their trends with the combined experience of the reporting utilities.

The chart for the period of July 1 to December 31, 1951 reveals some interesting trends. Dollar sales volume shows a rise with the last six months of 1951 being 9.5 percent greater than the same period of 1950. Previous Credit Pictures have indicated consistent increases in sales. Since the gain in customers was

only 3.6 percent, the increase in dollar sales volume was due in large part to increased consumption per customer. This is a healthy sign for any business.

The total Accounts Receivable balances outstanding for the nine geographic divisions was 10.1 percent higher than in 1950 which is in direct proportion to the increase in sales volumes. Collection on active accounts showed no change since the ratio of outstanding to sales increased only 0.1 percent.

While each region and the U. S. total shows an increase in number of customers on the lines, principal rises were registered in the South Atlantic, East South Central and Mountain States.

The extent of the use of the discon-

(JUNE 30, 1951—DECEMBER 31, 1951) • PERCENT INCREASE OR DECREASE OVER CORRESPONDING PERIOD—1950

	NEW ENGLAND	MID ATLANTIC	EAST NORTH CENTRAL	WEST NORTH CENTRAL	SOUTH ATLANTIC	EAST SOUTH CENTRAL	WEST SOUTH CENTRAL	MOUNTAIN STATES	PACIFIC STATES	UNITED STATES TOTAL
SALES	7.1	6.4	5.0	9.7	11.0	11.8	16.7	14.1	17.4	9.5
NO. CUSTOMERS ON CO. LINES	1.6	1.6	2.6	4.0	6.3	6.1	3.8	6.2	5.5	3.6
OUTSTANDING	9.2	7.6	0.4	3.1	10.2	7.5	21.3	12.2	25.2	10.1
OUTSTANDING % OF SALES	...	...	...	...	...	...	...	...	...	...
NO. DISCONTINUE NOTICES	- 9.0	11.0	- 21.9	7.3	13.3	1.6	2.1	- 14.3	- 16.6	- 0.4
NO. METERS DISC. N. P.	- 4.8	27.0	- 10.9	1.8	6.6	53.9	17.3	15.7	10.2	12.1
DEPOSIT OUTSTANDING	2.3	6.2	- 0.7	0.8	12.8	8.0	5.1	7.9	- 10.3	6.4
NO. ACCOUNTS CHARGED OFF	29.5	19.9	2.9	21.7	13.9	39.7	24.6	16.6	23.2	17.9
NET CHARGE OFF	7.7	12.3	14.8	- 3.8	- 1.7	60.4	63.1	3.8	0.9	9.8

nect notice as a collection medium is being given serious consideration by the industry. Changes in policy and experimentation account for wide fluctuations over the country; there is obviously an earnest attempt to reduce the number of such notices when practicable. Over-all, the increase in the number of discontinue notices sent to our customers was negligible, but there was a substantial increase in the number of customers deprived of service for non-payment.

In spite of many conflicting opinions about the advisability of accepting deposits and the beginning of a trend

away from them, most sections of the country increased their deposit coverage. There appears to be a substantial movement of persons about the country, and some companies who normally do not require residential deposits are finding it necessary to obtain heavy coverage in portions of their territory. The over-all picture for the country reflects a 6.4 percent increase in the dollar balance of deposits outstanding.

An increase in the number of accounts charged off and in the net charge-off does not show a desirable trend. All areas showed an increase in the number of

accounts charged off, while all but two showed an increase in the net charge-off.

An over-all look at the Credit Picture for this period reveals several significant factors and trends that should serve to prevent us from becoming complacent. Despite the generally rising business conditions, full employment and higher salaries, final bill losses on gas and electric service accounts have gone up. In our opinion the increases in the number of customers discontinued for non-payment, the number of accounts charged off and most important, the final net charge-off, should all serve as straws in the wind for the alert credit man.

Gas utilities add 1.5 million house heating customers

The gas utility industry added 1,514,000 new gas house heating customers during the 1951-1952 heating season according to American Gas Association statistics. This compares with 1,014,000 gas house heating installations made in the preceding heating season, and raises the industry's composite gas house heating saturation to 44.7 percent.

It is estimated that the 1952-1953 heating season will bring an additional 1,079,000 new gas house heating customers and that during the 1953-1954 and 1954-1955 heating seasons respectively about 1,084,000 and 1,057,000 new customers will be able to utilize gas for heating their homes.

These totals represent estimates for the entire gas industry based on data supplied by reporting companies to the Bureau of Statistics, A. G. A. In the study made by the Association, reports were received from 295 companies serv-

ing 21.6 million residential customers, equivalent to 91.5 percent of the industry's residential customers.

The gains estimated for the next three heating seasons are based on expectation of a gradual modification of heating restrictions imposed by the Petroleum Administration for Defense as a result of increased pipeline capacity. Conversion of additional utilities to natural gas, particularly in New England, will permit the addition of many new gas house heating customers.

PAD Order No. 2, issued in August, 1951, limited new natural gas heating installations in certain areas. Utilities affected by the order were permitted to add new heating customers to the extent of one percent of total gas customers annually. Two general exceptions were incorporated into the order. One exception permitted communities that had re-

cently converted to natural gas to accept up to 10 percent of total gas customers as users of gas heat during the first two years after conversion. Under the other exception in communities where no gas service had previously been available, or in which fewer than 5,000 customers had received manufactured gas, no limitations were imposed.

The original PAD order was effective in 15 states and the District of Columbia. An amendment to the Defense Production Act permitted this order to be set aside in states where the public regulatory body certified that it would assume responsibility for gas supply. To date eight states have so certified. The areas in which PAD Order No. 2 is still effective are Connecticut, Delaware, District of Columbia, Massachusetts, Michigan, New Jersey, New York and Rhode Island.

New A. G. A. tax committees offer help

American Gas Association now has in operation two committees and two subcommittees to assist member companies with tax problems. Robert A. Hornby, executive vice-president, Pacific Lighting Corp., San Francisco, chairman of the A. G. A. Committee of Executives on Taxation, has announced that the committees have been setup to help particularly with problems arising out of the Excess Profits Tax Act of 1950.

Mr. Hornby's committee is comprised of 12 members. It will be assisted by a Taxation Accounting Committee with 46 members, headed by Burton P. Smith, general auditor, Texas Eastern Transmission Corp., Shreveport, chairman. Work-

ing with the Taxation Accounting Committee will be a five-man Subcommittee on Excess Profits Tax Regulations, with Charles H. Mann, treasurer, Columbia Gas System Service Corp., New York, as chairman. The Subcommittee on Proposed and Introduced Federal Tax Legislation with eight members is headed by Joseph R. Weger, tax supervisor, Consolidated Gas Electric Light & Power Co. of Baltimore.

The A. G. A. Taxation Accounting Committee works jointly with the Taxation Accounting Committee of the Edison Electric Institute, and is analyzing proposed legislation, principally federal, which may affect the gas industry. The

joint committees recently held a meeting in Houston, where current taxation problems were reviewed by experts.

The Executive Committee on Taxation keeps in contact with the Taxation Committee and follows the course of current legislation. On request of the Bureau of Internal Revenue, the Subcommittee on Excess Profits Tax Regulations is assisting the bureau in drafting regulations under the Excess Profits Act of 1950.

Companies having tax problems are invited to write to Burton P. Smith; George H. Smith, assistant managing director, A. G. A., at Association offices in Washington, D. C.; or to Robert A. Hornby.

Gas is home show hit

Six full-size "Blue Flame" kitchens, completely equipped and connected for live demonstrations, dominated the 1952 Washington (D. C.) Home Show. Sponsored by Washington Gas Light Co., this Cavalcade of Kitchens was a crowdstopper throughout the April 19 to 27 run of the show.

Strategic location, immediately adjacent to the main entrance, along both sides of an aisle leading to the restaurant, caught the attention of practically every one of the show's 75,000-odd visitors. One side of the 100-foot aisle was occupied by the six "Blue Flame" kitchens, the other by a preview of Spring Style Show range models. Professional mannequins, acting as hostesses, lent a fashion touch to the displays.

An outstanding feature of the show, prominently displayed in the 20 three-quarter-page newspaper ads that promoted it, was the offer of a "\$3,000 Blue Flame gas kitchen and laundry," as a top award in the drawing of door prizes. The same prominence was given this prize in the radio and television spots that advertised the Home Show. Made possible through the cooperation of manufacturers and suppliers, this award included: Lester Brothers cabinets, a Tappan automatic gas range, a Bendix gyroscopic washer with magic heater, a Bendix automatic gas dryer, a Servel gas refrigerator and a Rheem automatic water heater. In the six kitchens were Portabilt, Beautycraft, Shirley, Lesco, Kitchen Maid and Youngstown cabinets.

Offered as additional, separate prizes in the drawing were Caloric, Magic Chef and Roper gas ranges.



Washington Gas Light Company's display of gas ranges was designed to tie-in with the A. G. A. Spring Style Show. Professional mannequins acting as hostesses, added a fashion touch



Cooking demonstrations in the six fully connected New Freedom Gas Kitchens, installed at the Washington Home Show by the Washington Gas Light Company, were consistent attractions



Strategically located at the entrance of the District of Columbia National Guard Armory, location of the Washington Home Show was, the Cavalcade of Kitchens had thousands of visitors



Two-fisted promotion will get the gas industry its full share

Load your future with dryer sales

By JUDSON S. SAYRE

General Manager
Bendix Home Appliances

The sales possibilities of the automatic gas clothes dryer are indicated by the rising sales curve of automatic dryer sales for the past five years.

AUTOMATIC DRYER SALES (gas and electric)

1947	58,000
1948	92,000
1949	106,000
1950	318,000
1951	495,000
Total	\$267,250,000

More dryers were sold in 1950 than were sold in all the previous years put together. Comparing dryer sales increases with other appliance sales increases we find ironer sales up thirty percent, conventional washers up twenty percent, automatic washers almost double

Abridged version of an address delivered before the Eastern Natural Gas Regional Sales Conference, Pittsburgh, April 7 and 8, and before the A.G.A. Mid-West Regional Gas Sales Conference, Chicago, April 21 and 23.



(eighty percent) and TV and freezer sales doubled. But dryer sales in 1950 were more than 300 percent of those in 1949. So even after making full allowance for Korea, dryer sales show a phenomenal rate of increase. Dryers are becoming the giant of the home appliance industry. This represents a total volume of over a quarter of a billion dollars worth of business.

But this is only a drop in the bucket compared to the dryer sales possibilities for the five years to come. We, at Bendix, are basing our production and merchandising program on a five year plan like this:

FUTURE DRYER SALES (industry figures)

1952	700,000
1953	900,000
1954	1,250,000
1955	1,500,000
1956	1,800,000
Total	6,200,000

A cross check with other appliance manufacturers, and with utility industry leaders, shows that most of them are in

basic agreement that these figures are attainable IF—IF every one of us who is in a position to influence dryer sales takes full advantage of every opportunity.

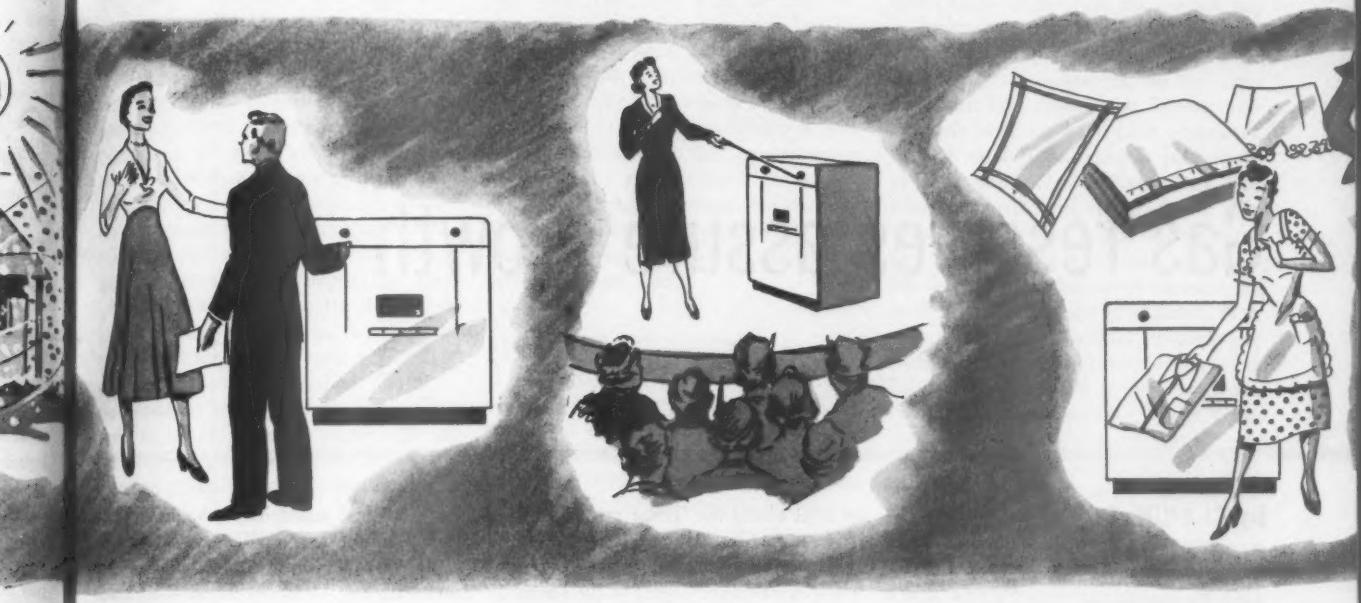
The big question before the industry is: what percent of this business will be gas dryer business?

So far the gas industry has had a very small percent, but there are signs that this condition is changing.

The year 1951 saw gas dryer sales increase from 21.2 percent of sales in 1950 to 27.3 percent in 1951. In 1951, electric dryer sales increased only 43.3 percent over 1950 while gas dryer sales more than doubled. Even after allowing for the heavier base figure in the case of electric dryers, this is a highly significant gain for the gas industry. This progress reaffirms our faith in the gas dryer and it is bound to result in increased confidence and action on the part of all gas dryer manufacturers.

These figures, based on an *Electrical Merchandising* compilation (see accompanying table), show an interesting trend. Through the rapid growth of dealers, electric dryers got the jump. Their promotion and advertising programs were reflected in the high per-

all share of the 6.2 million sales of dryers predicted for the next five years



centage of business they got in 1947 and 1948. But gas got underway and the sale of gas dryers built up. Lost momentum caused a slight slump in 1950, but they came back strong in 1951.

The increase in gas dryer unit sales from 26,000 in 1949 to 135,000 in 1951 can be attributed in great measure to Bendix' faith in gas dryer sales potential as expressed by increased production and advertising and merchandising.

COMPARATIVE SALES HISTORY (gas and electric dryers)

Year	Electric	Percent	Gas	Percent
1947	48,000	82.8%	10,000	17.2%
1948	76,000	82.6%	16,000	17.4%
1949	80,000	75.5%	26,000	24.5%
1950	251,000	78.8%	67,000	21.2%
1951	365,000	72.7%	135,000	27.3%
Total	820,000	76.7%	254,000	23.3%

From *Electrical Merchandising*.

In our own case, we stepped up our gas dryer production heavily in both 1950 and 1951. In 1951, for instance, our total dryer production was up over 80 percent.

But, our gas dryer production was increased more than 110 percent. We

are sure gas will continue to do a higher percent of each year's dryer business. This conviction is based on the fast spreading recognition by gas utilities of the vital importance of the automatic clothes dryer load—from both a load protection and a load building point of view.

Gas utilities report a load of from 500 cubic feet of natural gas per month with the automatic ignition gas dryer, up to 1,000 cubic feet per month with the constant pilot gas dryer. And since no one knows yet exactly where the average use of the dryer will level off, six, seven or eight hours per week, the load is still growing and the monthly consumption may be higher a year from now.

As for load protection, you know that every single 220 volt dryer that goes on your lines paves the way for the installation of electric ranges and water heaters. Once three wire service reaches the home it is a relatively inexpensive job to wire for other 220 volt appliances.

But what makes this dryer load even more valuable to gas utilities, is that it is all new load and it is high net

revenue load since no additional investment in plant or distribution system is required to handle it.

On top of all this (as Wayne Hutchesson of Manufacturers Light and Heat Co., Pittsburgh, points out) the gas clothes dryer reduces Monday morning peak demands. The distribution department's worst nightmare is having the cold weather occur on Monday morning right on top of their heavy warm-up industrial and commercial loads and peak domestic laundry hot water demands. In homes with an automatic washer and an automatic dryer, women soon get in the habit of doing the laundry in small, frequent batches throughout the week. Yet, the dryer increases total hot water consumption. Because, once the hard work of drying clothes on the line is eliminated, the housewife washes more things more often. Visualize a 20 percent to 30 percent dryer saturation and you and your distribution engineers will agree the dryer can really save your company a lot of money by reducing your worst cold weather peak demands.

Another thought: What better way
(Continued on page 54)

Asked to predict "What's ahead for natural gas?" a leader in its nation-wide expansion gives a succinct appraisal of the potentialities and problems of this lusty giant

Gas reserves assure growth

By CLAUDE A. WILLIAMS

President
Transcontinental Gas Pipe
Line Corporation
Houston, Texas

There are ample gas reserves for the next 20 years to support the present contractual requirements of all the gas companies in the United States. But what about the expanding demands that we will encounter in the next four or five years? It is my belief that sufficient reserves will be available to accommodate this growth. However, most of this gas supply is now in the hands of individuals and companies that are unwilling to sell in interstate commerce. Had the Kerr bill not been vetoed doubtlessly many trillion cubic feet of gas reserves in the Gulf Coast area would have been available for the interstate gas pipelines. As a result of this veto, we along the Gulf Coast are witnessing a minor industrial revolution in certain phases of the chemical industry, where in many processes natural gas is not only the fuel but the chief raw material as well. Abundant supplies of gas available for local intrastate consumption and the accessibility of water transportation has caused this migration of major industries to our section of the country.

Of the 106 trillion cubic feet estimated

to exist along the Texas and Louisiana gulf coast, at least thirty trillion cubic feet is uncommitted to any gas company. These reserves are largely in the hands of three or four major oil companies. With the recent industrial activity, there is more incentive for the pipeline companies to sponsor a Kerr bill through the Congress than it is for the producer to do so because the development of the petro-chemical, aluminum, and other local industries will provide adequate intrastate markets to protect expiring terms of primary leases or prevent drainage as a result of the sale of gas by other producers from the same reservoir. Meanwhile, this increased demand together with additions to major pipeline projects has boosted gas prices to a new peak, encouraging its exploration at an accelerated pace which will result in the discovery of more and more reserves in both old and new potential gas-producing areas as the years go by.

Delay offshore drilling

Offshore drilling will develop along the continental shelf off the Louisiana and Southeastern Texas Gulf coast, but this development will not take place until the tidelands question is settled. Substantial quantities of gas in Mexico and Canada will be available for future distribution in our markets when exploration activities can be promoted there to a greater degree. Even the competent and

distinguished authorities who have predicted future recoverable natural gas in excess of 500 trillion cubic feet have not included any estimates from those two countries.

A new problem may arise because of the vigorous competition for gas reserves which has advanced the recent field price of gas so precipitously. It is possible that pipeline companies may eventually need protection against themselves. It would not be surprising if some unfortunate company, when faced with the prospect of having to pay greatly increased prices for field gas through the operation of favored nations clauses in their gas purchase contracts, would intervene in a certificate case of another line pleading that such increased prices would not be in the public interest. In the author's opinion the Federal Power Commission would have the authority to rule on this question, and by denying a certificate under these circumstances might more effectively control the field price of gas than if they attempted to do so company by company and well by well. This looms as a real possibility in the future of our industry.

Gas sales prices to consumers may be expected soon to equal or exceed the prices of other competitive fuels. This is as it should be, for there is no good reason why the finest fuel in the world should be the cheapest fuel. The fact that the public will pay higher prices for gas has been proved by the way it fights for

Abridged version of an address delivered before the A.G.A. Natural Gas Department Spring Meeting, Los Angeles, May 12-13, 1952.

gas from new pipelines having much higher rates than those of old gas systems operating in the same territory. These increased prices might slow down the industry's expansion program, but from a long range viewpoint, that might have a wholesome effect for all of us.

Next is the question of expansion. Gas systems will continue to expand, although the races for new franchise territories are practically over. Except for the Pacific Northwest, all major areas of the U. S. are served with gas. Great emphasis will be placed on looping existing lines to increase capacity and much progress will be made to develop underground storage near market areas. Barring a full scale war or a prolonged strike, the steel shortage will ease, possibly in the third or fourth quarter of this year, and ample supplies will then be available for pipeline construction. It is not conceivable that, in the foreseeable future, market demand for gas will equal the supply. The nation will experience this condition indefinitely.

Money, a necessary ingredient in expansion programs, will continue to be in great demand to maintain a high level of industrial output in our defense economy. This naturally will tend toward higher interest rates and we can expect to pay more for our money for the next several years than we have had to pay during the past decade. Triple A bonds will carry a 3½ percent rate, number one preferred stocks will do well to get a five percent return, and temporary short term bank loans to the best companies will bear around 2½ percent to three percent.

Return draws investors

Rate of return will have to be adjusted to meet the increased cost of money. This will be accomplished on a company-by-company basis rather than on an industry-wide basis. The applicable regulatory authorities have not demonstrated thus far the broad vision and prompt action needed to maintain investor confidence that will assure availability of the necessary funds for our vast expansion program. If transmission and distribution systems are to provide the proper service facilities, the money to pay for them will not be forthcoming from the investing public unless a company earns enough to make its securities sufficiently attractive for buyers to want to own them.

In the near future, some method will be developed by the Federal Power Com-

mission to create rate increases almost as rapidly as they now grant rate reductions. This will be accomplished as a result of constant agitation by the industry until finally the regulatory authorities recognize that regulation must be constructive not only for the consumer, but for the investor as well, so that the public will be provided with the adequate services and facilities to which they are entitled. The investor's confidence is now being maintained by the aggressiveness of the utility managements in seeking higher rates when necessary, and it would be further bolstered if prompt and sufficient relief were granted as justified in each individual case.

Expansion has appeal

We face the prospect of some modification in the straight line method of depreciating a rate base, that is now in effect. Because all gas companies have been expanding considerably year by year, this problem has not been brought into focus. While our growth will continue, it is not likely that it will be as rapid in the future as it has been in the past five or six years, consequently in time this problem will be accentuated. We all know that if a company were to construct a pipeline system and accomplish no expansion after it was constructed, under the straight line depreciation policy its common stock would not be a very attractive investment. It is the expansion possibility that creates the outstanding appeal for pipeline companies' common stock.

There will be many new developments in techniques in the years ahead of us. In the near future the gas turbine will be perfected and replace the present-day compressor. Automatic gas transmission will then be a reality, following the pattern inaugurated just recently by the Sunray Oil Corp. which has installed remotely controlled pump stations to step up the capacity of its six-inch oil products line between the Allen and Sunray, Oklahoma refineries. On this line, microwave-controlled automatic pump stations operate from a master point which remotely regulates suction pressure, discharge pressure and activation of emergency power and shutdown equipment, while radio equipment at each automatic station telemeters information and provides means of monitoring operations at the central location.

There will, of course, be many new techniques developed in the distribution

systems and the appliances they serve. Most of the old gas distribution systems which have cast iron pipes will be replaced eventually with steel welded pipes —thus reducing maintenance expense. Research in all phases of the gas industry is constantly being conducted by individual gas companies in addition to the PAR program sponsored by our own American Gas Association. Projects under this program have been contracted to such established research institutions as the Institute of Gas Technology, Battelle Memorial Institute, A. G. A. Laboratories and various qualified universities. We will collectively reap the benefits from these experiments through the technological advances discovered. New uses will be developed for off-peak gas, such as gas air conditioning which is being proved even now to have a greater flexibility of performance, cheaper operation and less maintenance cost than its electric competitor. There will be other uses developed which will permit the distribution companies to equalize their summer and winter loads. New methods of storing gas in the summertime will be found which will reduce the so-called inferior use of gas to a large extent.

The extent to which inflation will progress in our country is not predictable, but it is certainly of the utmost importance to us in any business to be concerned with this economic menace. Unless some definite action is taken, if not to deflate prices, at least to stabilize them at their present level, we will in the next few years experience another great depression. Inflation is one of the most serious things facing us today. Doubtlessly we will soon witness a grass root opposition to any further income tax increase and, in fact, a reduction in the income tax rate. There is danger, though, that there will be further increases in ad valorem taxes.

Safety legislation both on a national and state basis is immediately ahead of us. Some states on the eastern seaboard have already passed such laws, and bills are pending in the Congress on this subject. To a large extent, federal legislation will be influenced by recommendations from our own industry and I feel that we should cooperate in the formulation of a reasonable uniform federal statute and oppose separate state requirements which in some cases may be designed more to promote revenue than safety.

Hold first materials conference

The first annual conference of the Purchasing and Stores Committee of the Accounting Section, American Gas Association, which was held on April 28-30, 1952, at Hotel Peabody, Memphis, was well attended geographically. Heretofore this meeting was conducted as a part of the EEI and A. G. A. accounting convention.

The conference was called to study problems involved in accounting for materials and supplies. In addition, the problems involved in purchasing, storing and distributing materials and supplies were examined. Findings and recommendations were submitted to the coordinator for dissemination to members.

Roy L. Groves, committee chairman, opened the session on Monday morning. The delegates were greeted by R. I. Highgate, superintendent of stores, Memphis Light, Gas & Water Division, Samuel S. Pharr, vice-presi-

dent, Memphis Gas Light and Water Division, extended a cordial welcome and expressed the hope that the members' visit would be both beneficial and pleasant.

L. R. Michelsen, of The Peoples Gas Light & Coke Co., and chairman, Standard Packaging Subcommittee, reported that the program for the packaging of malleable and black iron screwed fittings had been accepted and was being printed. He stated that copies of the approved recommendation would be forwarded to every accepter and that additional copies would be available by contacting the U. S. Government Printing Office, Washington.

He also spoke on the standard packaging program of stop cocks, the study of which was then in progress. The committee agreed that a change should be made in the weight of the package of two-inch threadless-end cocks that

was agreed upon in the original recommendation, and said change was to be reported to all manufacturers concerned. The chairman of the subcommittee was instructed to proceed with the program and to have the recommendation promulgated by the U. S. Department of Commerce.

The progress report of the project committee for Materials Handling Equipment Service was presented by Chairman P. H. Butler, Jr., Washington Gas Light Company. Mr. Butler reported that since the meeting in Chicago a year ago, the Materials Handling Equipment Service project had been formally approved by the A. G. A. and that several hundred manufacturers of material handling equipment were mailed a letter and reply form. It was emphasized that this service would be a continuing project of the A. G. A. and would serve to keep the industry well informed on material



S. S. Pharr, Memphis Light, Gas and Water Division, welcomed conferees during the opening session. At the speakers table were T. F. Shanley, A. G. A.; R. I. Highgate, Memphis; Mr. Pharr; R. L. Groves, chairman, Purchasing and Stores Committee, Tulsa; P. H. Butler, Jr., Washington; and L. R. Michelsen, Chicago



Leading the material situation forum during the afternoon session were Roy L. Groves, Oklahoma Natural Gas Co., Tulsa; Patrick H. Butler, Jr., moderator, Washington Gas Light Co.; B. I. Shulman, M. J. Rose and G. B. Herr, of various defense agencies; George H. Smith, A. G. A.; and R. I. Highgate, Memphis



C. H. zur Nieden, Philadelphia Electric Co., was moderator of a panel discussion of material control. Participants were Committee Chairman Roy L. Groves; E. C. Rogers, Equitable Gas Co.; and J. C. Sims, The Brooklyn Union Gas Company.



At the head table during the Tuesday morning session were Fred Vandemark, Memphis; E. F. Hawkesworth, Southern California Gas Co.; Committee Chairman Roy L. Groves; and L. R. Michelsen, The Peoples Gas Light and Coke Co., Chicago.



At the speakers' table, during April 28 luncheon at the first annual conference of the Purchasing and Stores Committee, were: T. F. Shansley and G. H. Smith, A. G. A.; G. D. Herr, PAD, on leave from Peoples Natural Gas Co.; and R. L. Groves, Oklahoma Natural Gas Company.

handling equipment. Response to the questionnaires was good. These answers were correlated by general types of material and forwarded to the committee members for full review and preparation of information to go into the "Material Handling Service" catalogue, which should be completed this year.

In addition to a general section, the catalogue is expected to contain sections devoted to: standard packaging equipment, preservatives, reclaiming equipment and wrinkles.

National Tube Company's film, "Pipe Without Welds," showing the manufacture of seamless pipe, concluded the morning session.

The Monday afternoon panel discussion on material control, dealt with related problems of purchasing, stores and accounting. Acting as moderator was C. H. zur Nieden, Philadelphia Electric Company. The panel members, each a specialist in his particular

field, were: purchasing, J. C. Sims, The Brooklyn Union Gas Co.; stores operation, E. C. Rodgers, Equitable Gas Co.; and accounting, R. M. Robinson, Republic Light, Heat & Power Company.

On Tuesday morning, E. F. Hawkesworth, Southern California Gas Co., chairman of the subcommittee on Handling of Materials by Electric and Gasoline Fork Lift Trucks, presented the committee's findings. The report was an impartial analysis of the good and bad points of both types of motive power in the popular sizes of these trucks. The subcommittee concluded that both types of motive power are necessary and their use has to be determined by a general survey of the services to be performed by the trucks, considering terrain, ventilation in buildings, length of runs, and the comparative cost of gasoline and electricity.

A local equipment company showed a film of various lift trucks.

In the afternoon, the Material Situation forum was conducted by P. H. Butler, Jr. Panel members were Mathew J. Rose, chief, Resources Branch of Defense Production Administration; B. I. Shulman, director, Defense Liaison Staff of Home and Housing Finance Agency; G. B. Herr, director of gas facilities division of Petroleum Administration for Defense; and George H. Smith, assistant managing director, A.G.A.

Mr. Rose discussed the general program of DPA in terms of defense requirements, production requirements, construction requirements, and export requirements, and elaborated on the construction program which was of primary interest to the association. He indicated that during 1951 so many major programs were initiated that by the end of the year the country was in real trouble, and it has taken to the beginning of the third quarter of 1952 to provide for pro-

(Continued on page 54)

Authoritative instructors train students for successful selling in the highly competitive commercial market

Product knowledge aids sales



L. E. Biemiller, Baltimore, chairman, Sales Training Committee, and R. A. Malony, Bridgeport, Conn., section chairman, discuss details of the school program



On the faculty were: Tracy B. Madole, Magic Chef, Inc., who spoke on roasting ovens; Lester A. Dubberke, Milwaukee Gas Light Co., who discussed service and installation; and Merrill H. Douglas, Vulcan-Hart Mfg. Co., gas range selling point

An intensive course of instruction, covering almost every phase of commercial gas selling was given to eighty-eight students who attended the Commercial Gas School, conducted by the A.G.A. Industrial and Commercial Gas Section, at the Edgewater Beach Hotel, Chicago, May 5-9, 1952. An excellent faculty, composed of qualified sales and engineering talent from gas utility and gas equipment manufacturing companies, brought students a wide range of information that will help them increase sales of gas in the highly competitive commercial market.

Twenty-two states were represented in the student group. Four more came from Canada, and South America sent two students. Classes convened daily at 8:30 a.m. and frequently the students were still firing questions at the lecturers after

5:30 in the afternoon.

Ronald A. Malony, executive vice-president, The Bridgeport (Conn.) Gas Light Company, chairman, A.G.A. Industrial & Commercial Gas Section, greeted the students and later spoke to them on the importance of the commercial gas man. Lawrence E. Biemiller, Consolidated Gas Electric Light & Power Co., Baltimore, chairman of the Sales Training Committee which was in charge of the school, outlined the objectives of the five-day course. James J. Condon, The Peoples Gas Light & Coke Co., Chicago, substituted for F. X. Mettenet, in welcoming the group to Chicago and then delivered a lecture on the importance of the commercial gas load. Mr. Condon later presided over one of the school sessions and gave a talk on the National Restaurant Associa-

tion show which was running in Chicago currently with the Commercial Gas School.

For five full days students attended lectures delivered by competent speakers on commercial gas cooking equipment; on comparative costs and problems presented by competition; on volume water heating sales for commercial establishments; on service and installation problems and on selling techniques. Demonstrations with live models and live appliances, as well as color motion pictures and sound slide films were used to bring home many of the points of the training course. Twenty-six members of the gas equipment and the gas utility industry comprised the faculty.

Industry representatives who contributed so generously of their time and talent were: I. S. Anoff, Albert Pick Co.,



Fred H. Groen, Groen Manufacturing Co., instructed students in the use of stock kettles



J. Edward Coan, Middleby-Marshall Oven Co., lectured on advantages of modern gas ovens



A. M. Bornhofen, Anetsberger Bros., Inc., and K. L. Seelbach, The Cleveland Range Company



Paul Inskeep, Detroit-Michigan Stove Co., spoke on broilers, and I. S. Anoff, Albert Pick & Co., on kitchen planning and ventilation



The 88 students attending the Commercial Gas School, are seen here ready for final examination, from 22 states, Canada and South America

Inc., Chicago; A. M. Bornhofen, Anetsberger Brothers, Inc., Northbrook, Illinois; George T. Carlin and Robert Grusendorf, Swift & Co., Chicago; J. Edward Coan, Middleby-Marshall Oven Co., Chicago; James J. Condon, The Peoples Gas Light & Coke Co., Chicago; Merrill H. Douglas, Vulcan-Hart Manufacturing Co., New York; Lester A. Dubberke, Milwaukee Gas Light Co.; Milton J. Firey, Congress Hotel, Baltimore; L. J. Fretwell, Oklahoma Natural Gas Co., Tulsa; Paul C. Grimes, The G. S. Blodgett Co., Inc., Burlington, Vt.; and Fred H. Groen, Jr., Groen Manufacturing Co., Chicago.

Also included in the faculty were: L. H. Hoelter, A. O. Smith Corp., Chicago; Paul Inskeep and F. A. Kaiser, Detroit-Michigan Stove Co., Detroit; Tracy B. Madole, Magic Chef, Inc., St.

Louis; E. E. Magnuson, Eclipse Fuel Engineering Company, Rockford, Ill.; R. A. Malony, The Bridgeport Gas Light Company, and W. D. Relyea, Public Service Electric & Gas Co., Newark, N. J.

Other faculty members were: L. J.

Reutlinger, Albert Pick Co., Inc., Chicago; Kurt L. Seelbach, The Cleveland Stove Co.; C. George Segeler, Edgar A. Jahn and Hayes S. Walter, A.G.A. Headquarters, New York; and Richard L. Stone, A.G.A. Laboratories, Cleveland.

Gas exhibit dominates restaurant show

- The commercial load is of rising importance to utilities serving urban areas. Today, according to statistics released by the National Restaurant Association, one-fourth of the food sold in United States urban areas is served away from home. The restaurant industry is the fourth largest business in the country, even out-ranking automobiles, furniture and appliances and far exceeding utility gas sales. There is a restaurant for each seven-hundred persons in the United

States. One out of every six persons working in retail trades is a restaurant employee. There are over 70 million meals prepared each day in restaurants in this country. The healthy condition of the mass feeding market, as indicated by attendance and sales during the recent National Restaurant Convention and Exposition, indicates increased commercial gas sales.

(Please turn to next page)



L. F. Fratwell, Oklahoma Natural Gas Co., Tulsa, uses a "menu" to present a "nourishing" diet for a water heating promotion program



Patricia Anderson and Robert Grusendorf, Swift & Co., demonstrate methods of frying chicken in deep fat, at the Commercial Cooking School



The Sales Training and the Food Service Equipment Committees of the A. G. A. Industrial and Commercial Section, held a joint luncheon meeting during Commercial Cooking School



Luis Larabure came from Lima, Peru, Peter Vm Gompel from Bogota, Colombia, to the school

The best yet" or "the best ever" are phrases glibly, easily and loosely applied to most convention exhibits yet they can be honestly used when reporting on the 33rd National Restaurant Convention and Exposition, May 5 to 9, Navy Pier, Chicago. The outstanding gas section exhibit easily had the dominant space of the exposition and attracted capacity crowds.

Joining hands with nineteen gas appliance manufacturers in exhibiting in one section of thirty-two booths, A. G. A. had a combined exhibit extending from wall to wall in a strategic location. Those passing the length of the pier to view the show had to pass through one or the other of the two aisles of gas equipment.

Each end of the gas section had modernly styled decorative entrances with prominent display of the "Blue Flame" and the slogan "Where Food Is Finest, It's Cooked With Gas." These new entrances as well as the re-styled individual booth decorations were attractive and in

such excellent taste as to win many favorable comments. In keeping with custom in such joint A. G. A. exhibits, the blue draped background and the decorative motif or display scheme was uniform in all the booths, with the showing of separate equipment items of each manufacturers furnishing the individuality for each display. Six pylons with motor driven revolving "Blue Flames," were placed about the section to add animation and color.

Restaurant operators were naturally attracted to the gas exhibits through force of long habit, and because of their eagerness to learn of the new and improved features being incorporated in modern gas appliances. Sales staffs of the manufacturing exhibitors were kept busy showing their equipment and in pointing out the "new and better" features.

Automatic oven ignition, safety controls and new silvertone grey silicone finishes on ranges and ovens were predominant among the new developments. One

manufacturer had a new four-deck bake oven and a new luncheonette range with four open burners and broiler-griddle section. This manufacturer intends to offer the new silvertone or granite grey finish on some items at no additional cost.

Three lines of steam jacketed kettles were in the A. G. A. section this year. In addition to the Hubbert and the Groen exhibits, Vulcan-Hart Manufacturing Co. displayed the Parker-Vulcan kettles which they manufacture since purchasing the Parker Manufacturing Co. recently.

Perhaps as a result of ever-tightening sanitation requirements, the manufacturers of hot water heating equipment (Sellers Engineering and Ruud) were noted to have crowded booths. Such interest and attendance should presage good business and indicate also that the exhibitors will be well repaid for participation in the joint exhibit.

Full booths with a never-ending stream of customers and prospects was
(Continued on page 57)

Do you know how to protect your tires? An expert gives detailed directions on setting up a mileage-boosting program

Plan for more tire mileage

By G. M. SPROWLS

The Goodyear Tire & Rubber Co.
Akron, Ohio

Managements of utilities with operations covering a considerable area have occasionally noticed a difference in tire mileage secured from various vehicles. These differences may be due to one or a combination of: surface of roads; curves and grades; driving habits; adequate size of tire and rim; or tire maintenance practices.

A large utility company called on us to tell them why tire mileage on similar vehicles varied so much in three different towns. We checked the three operations and could detect nothing that would account for the large difference in tire mileage until we examined the surface of the streets. We discovered the town with low mileage had rather abrasive surface. We secured sand used in the three different streets and had photomicrographs made. Figure 1 shows sand used in the town having the highest average tire mileage. Note that the grains are relatively large and have more or less rounding corners. This type of sand would not be used for sandpaper because it would not cut. Figure 2 has much smaller grains, but most of the corners are sharp. This type of sand might be used for fine sandpaper. It would cut, but cut slowly. Figure 3 has large grains with sharp corners. This type of sand might be used for coarse sandpaper. It cuts, and cuts fast.

Abridged version of a paper delivered at the Distribution, Motor Vehicles and Corrosion Conference, Philadelphia, April 7-10, 1952.

The average tire mileage in the three towns varied, as you probably would expect. If we take the town with the large rounding grains as 100 percent, the small sharp grains gave 87 percent as high mileage, whereas tires used with the large sharp grains gave only 58 percent as high mileage as the tires in the town with the large rounding grains.

It pays to buy quality merchandise. In tires, the more severe the service, the greater is the gain by using only high quality. The comparisons with different types of sand was based on high quality tread stocks. Lower grade tread stocks indicated only 50 percent as high mileage on the large sharp grains as compared with large rounded grains, whereas the high quality tread stock gave 58 percent.

Curves and grades have a very material effect on tread wear. We have accurate data on mileage on several hilly, winding roads vs. relatively flat, straight ones. In one test we discovered that the curving, hilly route gave only about 60 percent as high mileage as the relatively flat road. We designed and constructed an instrument which records the force acting against the tire in making curves and in accelerating and decelerating.

Drivers differ considerably in the speed they drive as well as in the manner they accelerate and decelerate. The major cause of tread wear is slippage. The less the slippage, the less the wear. Slippage increases with speed. The more rapid the acceleration or deceleration, the greater the slippage and the faster the tread wear.

Adequate size of both tire and rim is a *must* for good tire mileage. Overloading a tire boosts its operating temperature by increasing its flexing. It usually pays to oversize a truck tire. The effect of load on tire mileage is shown by the following table:

	Increases Underloading tire mileage
30%	100%
20%	61%
10%	29%

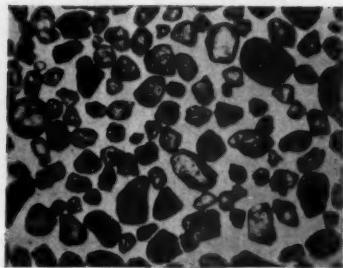
Normal load gives normal mileage.

	Decreases Overloading tire mileage
10%	18%
20%	30%
30%	42%
40%	52%
50%	60%

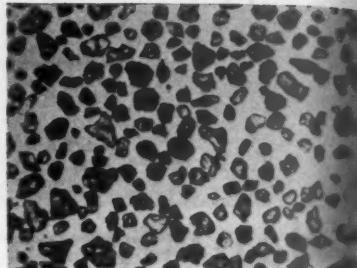
Underinflation permits excessive deflection and, so, has the same effect as overloading. The tire itself cannot recognize the difference as both produce abnormal deflection. An accurate gauge for checking tire inflations is well worth its cost. Any company that has a number of vehicles can well afford to have a master test equipment for checking the accuracy of service gauges.

In many of our service points, we have a simple, inexpensive checking equipment. Figure 4 shows its construction. An air tank from a scrapped vehicle is equipped with a Bourbon tube type test gauge—preferably with a free zero. Valves are included to control the amount of pressure in the tank. The main purpose of the tank is

Careful tire care will get you a bargain in extra mileage that haphazard maintenance would waste



SAND | Large Rounded Grains



SAND | Small Sharp Grains

to provide sufficient volume of air so as not materially to affect the reading of the test gauge when the service gauge is applied.

Many persons, especially those having only a few vehicles, depend on the nearby gas station for checking air pressures as well as providing air. Knowing the tendency of service gauges to change their calibration with usage, a fleet owner should have another means of checking the accuracy of the inflation.

Checking inflation with a gauge twice a month should be satisfactory for vehicles with low monthly mileage. Drivers should make a hammer or similar check of all tires before taking vehicles out, to see if any tires are flat or extremely low in inflation. Vehicles operating high daily mileage should require more frequent gauge checks—possibly weekly would be desirable.

Valve caps are very helpful in retaining air in tubes by providing a secondary seal as well as preventing foreign material from interfering with the proper functioning of the valve core.

No single factor will cause as fast and as unnecessary tread wear as excessive "toe-in." By "toe-in" is meant that the distance between the two tires on the same axle is less in front than behind the axle. The ideal condition is to have the two tires revolving in parallel planes while the vehicle is in motion.

Usually there is some play in the axle and steering parts. Centrifugal force tends to pull the wheels outward and thus will tend to take up some toe-in. A slight increase in the amount of toe-in is usually desirable for older vehicles as there is apt to be more play than in newer vehicles. We have used a "toe-in" of $\frac{1}{16}$ " to $\frac{1}{8}$ " with good results. The frequency of regular toe-in checks should be based on operated vehicle mileage and severity of service. The operated mileage of the average gas distributing system would probably call for rather long periods of time between checks. Many operations check toe-in on a 5,000-mile basis. However, the type of service may make it desirable to reduce this mileage between checks.

Check alignment after blow

In addition to periodic checking of toe-in, any time the tires are given a severe blow, such as sliding into a curb or other obstacle, a check of front wheel alignment should be made to make sure there is not excessive toe-in. No toe-in should be permitted.

Presence of excessive toe-in can usually be told by observing a feather-edge wear on the tire.

Balancing is a practice that has become more and more important in recent years. Balancing of wheel assemblies of passenger cars is practically a *must*. Larger size truck wheels and tires

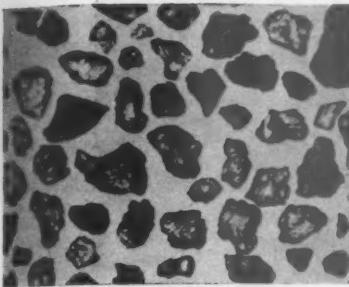
present a different problem. Here total weight of the assembly is much greater and unless the out-of-balance is excessive, the percent to total is quite small. Tests of larger sized wheels and tires—balanced vs. out-of-balance—failed to show any appreciable advantage to balancing as far as tire wear is considered. However, many operators have found it desirable to balance to improve handling or at least to handle complaints of drivers.

Cuts and punctures are the principal causes of tire removal on a number of truck fleets. The results of a number of truck operators indicated 35 percent of their tires were removed for these causes at a mileage 18 percent below that of tires removed for normal tread wear. A majority of such tire failures could have been prevented by one or more of three practices:

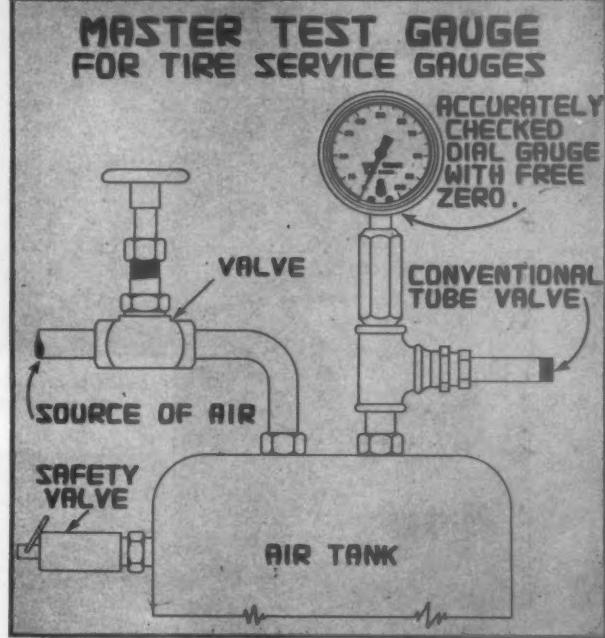
1. Keep yards and garages free of debris;
2. Have drivers attempt to avoid objects likely to cause a cut or puncture;
3. Make frequent and periodic inspection of tires and remove all foreign material. If size of injury warrants it, have repair made.

The first two practices hardly need any explanation. The third one probably does. The average person thinks that a tire goes flat very soon after it picks up a nail. We have deliberately driven nails through tread, carcass, and tube of all four tires on a car and op-

A master checking equipment for testing the accuracy of service gauges is well worth its cost



SAND | Large
Sharp
Grains



erated it a week without a single tire going flat, in fact with only a small loss of air. The reason the tires did not go flat was due to the walls of the tube clinging to the nail. Eventually, with the flexing each time the wheel revolves, the hole enlarges and the tire goes flat. If the tire is operated flat very long, it will have the carcass damaged beyond repair. On the other hand, had the nail been pulled out soon after it entered the tire, probably no damage would have occurred. On some large fleet operations, by careful inspection and removal of foreign material at periodic intervals, we cut the number of road delays due to tires to half in the first year of this practice—and in the second year, practically duplicated this percent reduction. Of course, after removing a nail or other foreign material, a check must be made before the vehicle is placed back in service to determine whether pulling the material out has caused a leak.

Seldom do all four tires on a car wear at an equal rate. Even if they did, there is the spare to be considered. A higher average mileage for all five tires will be secured if tires are rotated so as to keep them all at about the same degree of wear rather than to have some tires worn out while others have considerable tread remaining or may not have been used at all—in case of the spare. A method of rotation that has proved satisfactory is

to move the front tires to the rear on the same side, the left rear to the right front, the right rear to the spare, and the spare to the left front. In addition to increasing the mileage the tires will deliver, this procedure will tend to prevent uneven wear from becoming excessive on front wheels.

On trucks, somewhat different procedure is suggested. If there is a tendency for new tires applied to front wheels to wear unevenly, front tires should be moved from right to left and left to right. This should be done in the early stages of uneven wear. Usually where such uneven wear tendencies exist, two reversals—if done soon enough—will handle the situation.

Recommend tire rotation

On a six-tired truck, the common practice is to apply new tires to the front, reversing them as required, and when they have covered about 1/3 of their mileage expectancy, to move them to the rear.

Experience has proved that with two tires mounted on a dual wheel, one tire will wear at a faster rate than the other until a definite relationship becomes established between them. From then on, they usually continue to wear in a manner to maintain this relationship. Where tread wear is the major condition to consider, rather than brake drum heat or carcass con-

ditions, this relationship should be determined and tires mounted accordingly.

Where brake drum heat or other conditions on the rear inside wheel tends to cause premature failures and such conditions do not occur on the outside wheel, at least not to the same degree, it is desirable to apply the larger of the two tires to the outside rear for a second third of their mileage and the final third on the rear inside. Then if premature failure does occur on the rear inside, at least 2/3 of the mileage expectancy will have been secured before failure.

You may be saying to yourself, "So far, you have been talking in rather general terms. Now take my own operation—about two thirds of my vehicles are one-half-ton pickup or special panel trucks—some two-ton trucks, a few heavy-duty special-purpose trucks, and some passenger cars. What can I do to save money on tires?"

Now if you are a typical utility operation, you probably have not paid much attention to tires. You probably will say you hire men who are good customers' men, who can take care of repairs and all kinds of emergencies that may come up. Driving the vehicles is just a means of getting to the job, and you do not want to have them spending their time checking inflation, toe-in and other details.

Some kind of a bonus or prize for
(Continued on page 53)



Joseph E. Walsh, Metropolitan Utilities District, Omaha, 1951 council chairman, and Adolph E. Hatley, Central Indiana Gas Co., outgoing 1952 chairman, congratulate George D. Wells, The Gas Service Co., Topeka, incoming chairman Mid-West Regional Sales Conference



H. D. Valentine, The Peoples Gas Light and Coke Co., conference coordinator, spoke



Irving K. Peck, Columbia Gas Service Corp., urged more gas and appliance promotion

Only more selling is needed

Adolph E. Hatley, Central Indiana Gas Co., Muncie, and chairman, Mid-West Regional Gas Sales Council, expressed the purpose and objectives of the twenty-sixth Mid-West Regional Gas Sales Conference when he emphasized the need for filling voids in gas industry sales patterns in his opening address. The conference, which is sponsored by the American Gas Association, was held at the Edgewater Beach Hotel, April 21 to 23, 1952, with more than five hundred in attendance.

Mr. Hatley said there was plenty of merchandise, materials and money available. Everything was in good supply except salesmanship. Production of gas appliances will exceed demand as long as this void exists. Electric competition may double its plant capacity in the next five years, he warned. The gas industry must recognize the strength of competition and plan accordingly. The level of sales effort must be raised and quality and durability of gas appliances sold instead of price. The industry must assume leadership in salesmanship and in training

salesmen, both in utility and dealer fields, Mr. Hatley said. He prefaced his remarks with a splendid tribute to George F. Mitchell, the late president of A.G.A. and The Peoples Gas Light & Coke Co., who was to have delivered the opening address.

Dean H. Mitchell, president, Northern Indiana Public Service Co., Hammond, was prevented by illness from delivering his talk on the significance of balance in merchandising. He was ably replaced by Edward D. (Dell) Anderson, vice-president and director of the same company. Mr. Anderson asked delegates how complacent they can get about domestic sales. Formerly because of the number and variety of different appliances the balance of favor and knowledge of the housewife was somewhat toward the electric side. But today the gas industry has a group of fine appliances that perform most of the household tasks most efficiently. But, he said, the gas utilities are inclined to neglect the promotion of these appliances.

A big job lies ahead for both large



Mort Farr, NARDA president, offered appliance dealers' cooperation in merchandising



Marjorie Child Husted, consumer relations consultant, evaluated good home service



Judson Sayre, Bendix Home Appliances, predicted 6.2 million dryer sales in five years



Walter E. Eynon, The A. C. Eynon Plumbing Co., lauded contractor-dealer cooperation



Christy Payne, The Peoples Natural Gas Co., called for all-out gas refrigerator selling

and small utilities, Mr. Anderson said. Many utilities are busy with the problems of expansion of facilities and consequent financing and overlook the importance of promotion of domestic gas services. Even the space heating load does not inherently belong to the gas industry. We can't laugh off the heat pump—several hundred now are in operation. And just as the electric range is a threat in the kitchen, the electric heat pump can be a threat to the house heating load. Gas appliances need more promotion than competitive products because they have no big names behind them.

Mort Farr, president, National Appliance & Radio Dealers Assn., visited the conference. He begged the gas sales representatives not to be too defeatist in their attitudes and outlook. He offered the cooperation of the thousands of dealers throughout the country who are members of his association, in the industry's merchandising plans. Harry Price, vice-president of NARDA was introduced and told delegates that he had sold more than four hundred gas ranges in the past quarter, proving that appliances can be

moved with proper promotion.

Blaine A. Johnson, president, Barney Olson, Inc., Chicago, named seven factors in connection with house heating that were the collective responsibility of the manufacturer, the utility, the contractor and the dealer. These were the fuel; the burner, pilot, valves and other parts needed to convert the fuel into heat energy; the heating plant; the heating system to distribute the heat; the control system to regulate ignition and operation; the space to be heated and, last and most important, the customer.

Development of a market for gas house heating must pass through three phases he said: the pioneering phase; the expansion phase; and the acceptance phase. The first phase should be almost entirely in the hands of the utility organization. In the second phase the utility should call upon the merchandising activity and experience of contractor and dealer organizations. In the third phase the utility must work to retain and increase its present market but also promote high standards of equipment selection and installation practices if the

standards of performance and durability are to be maintained.

He pointed out that 1951 was the third best year in the history of the gas industry, as far as gas heating was concerned. Today about forty percent of all automatic central heating equipment is gas. About fifty percent uses oil and ten percent uses coal. Gas utilities, manufacturers of equipment, and dealers and contractors, each have individual responsibilities that must be assumed and carried out if the gas industry is to keep satisfied customers.

George D. Wells, The Gas Service Co., Topeka, incoming chairman of the council, presided at the Monday afternoon session. His opening speaker was E. Carl Sorby, vice-president, Geo. D. Roper Corp., who advised the gas utility salesmen to get off their seats if they wanted to get electric competition off their minds. Admitting that the industry was doing a splendid job in advertising and promotion, he declared it was still necessary to employ some people to sell gas appliances to the prospects that had been exposed to advertising.



E. D. Anderson, Northern Indiana Public Service Co., evaluated merchandising plans



E. Carl Sorby, Geo. D. Ross Corp., advised gas utility salesmen to get up and go



B. A. Johnson, Barney Olson, Inc., defined various responsibilities in house heating selling



R. G. Negri, The National Cash Register Co., said salesmen must be inspired to sell

He advocated the dramatization of sales stories by demonstrations on live appliances, not only on utility's, but also on dealers' sales floors. In an interesting and convincing demonstration, Mr. Sorby proved that through preparation of meals and foods in the home on a modern automatic gas range, a housewife could effect savings of more than \$175 a year. These savings were computed in costs of ingredients and fuel against cost of food purchased, and in decreased shrinkage of meats through uniform cooking on gas ranges.

Ralph G. Negri, The National Cash Register Co., Dayton, made an interesting presentation on motivating salesmen. Millions of dollars are spent on selection and training of salesmen, he said, but often little is spent on motivating men to keep them selling efficiently. About seventy percent of the nation's production is sold by twenty percent of the nation's salesmen. He advocated setting up objectives such as loyalty, pride and desire as motivations. Salesmen must be shown the benefits in security, in earning power, in job satisfaction, recognition and promotion. The average salesman spends 100,000 hours of his life in selling. That is a long time to spend doing something a man really doesn't like to do, Mr. Negri said.

Walter E. Eynon, president, The A. C.

Eynon Plumbing Co., Canton, gave the delegates a case history of the cooperative selling project his company had carried on with The East Ohio Gas Co., Cleveland, for nearly twenty years. From the broad background of this experience, he pointed out the advantages and some of the pitfalls to be found in operating a contractor-dealer merchandising plan for gas utilities. The plan worked most successfully in his area, and Mr. Eynon recommended the use of similar measures wherever possible.

High sales potential

A brief history of the progress made in sales of automatic clothes dryers in the past five years was given by Judson S. Sayre, Bendix Home Appliances, South Bend. In 1947 there were 58,000 automatic clothes dryers sold, as against 495,000 in 1951, he said. He estimated that more than 6.2 million automatic dryers can be sold in the next five years. The gas industry is rapidly closing the gap in sales between gas dryers and electric dryers, he declared.

Tuesday morning was devoted to a showing of the newest moving pictures available as sales aids in promoting gas appliances. "New Ways To Sell Modern Gas Ranges," a color slide film prepared by GAMA, was favorably reviewed, as

was a sound-slide film on gas water heating selling, also prepared by GAMA. A.G.A.'s national advertising campaign for 1952 was presented in another sound-slide moving picture.

Joseph E. Walsh, Metropolitan Utility District, Omaha, 1951 chairman of the council, presided at the session Tuesday afternoon. His first speaker was Christy Payne, The Peoples Natural Gas Co., Pittsburgh, and chairman of the A.G.A. National Advertising Committee. Mr. Payne pointed out some of the many reasons why the gas industry should unite to re-stimulate aggressive sales efforts on gas refrigeration.

He traced the history of the competition between electric and gas refrigeration, in which one manufacturer, lacking the stimulus of competition in its own field, and often lacking in utility support, had attempted to compete against many of the giants in the electric field. He read letters from George F. Mitchell, late president of A.G.A., and from the president of the Rheem Manufacturing Co., which contemplated manufacturing a gas refrigerator. Both of these letters pointed out the need for strong support on the part of gas utilities.

Mr. Payne declared the gas industry must have a gas refrigerator to sell. Without it we can no longer promote an

D. Roper
is utility
and ad

all-gas kitchen. He displayed full color ads to be placed in *Life* and the *Saturday Evening Post* magazines. He outlined a promotional campaign including an A.G.A.-Servel sales contest being conducted and urged the gas companies to join in this campaign.

Delegates were treated to an inspirational and entertaining talk on sales development by William H. Gove, Minnesota Mining and Manufacturing Company. He pointed out that salesmen must develop three things: a desire to serve; the ability to sell the benefits of a product; and the courage to persuade the prospect to buy. He narrowed it down to what he termed his "Three S" pattern—Serve, Show, Suggest. The latter ingredient is particularly important, he said. Suggestion of ideas to help or interest customers was a major part of a good selling story.

Irving Peck, vice-president, Columbia Gas System Service Corp., and chairman, A.G.A. General Promotional Planning Committee, told representatives that it was time to sound off for gas. For the

first time in twelve years we are in a buyers' market. Warehouses are bulging with products, he declared. The 1929 depression started from bulging warehouses. A crisis is upon us and gas utilities must recruit and train sales forces.

Thinking and planning must be organized, and individual situations studied, including plans for dealer development, he insisted. He echoed earlier speakers in urging dramatization of sales stories.

As chairman of the committee in charge of coordinating the promotional activities of the industry, he reported on how the \$1,276,000 contributed by gas utilities to the PAR fund last year was spent to provide a favorable climate for sales. He said a committee was investigating possibilities of a national television program under the PAR Plan. A live program costing between two- and three-million dollars was out of the question right now, but exploration was being continued on packaged programs.

Last year, our national consumer advertising, plus that of the gas range man-

ufacturers, exceeded by \$219,000 the advertising done on behalf of electric ranges. Our water heater advertising in 1951, augmented by that of the manufacturers on gas water heaters, was \$143,000 ahead of electric competition.

National magazine advertising is carefully selected and the same care is exercised in the Industrial and Commercial advertising, he said. Then promotional campaigns are organized to carry this advertising to the utility company and the dealers. There is need for more gas companies to take greater advantage of the money being spent on their behalf on advertising and promotion, Mr. Peck said.

Dr. J. Martin Klotsche, president, Wisconsin State College, said that today we face one of the most severe crises ever to surround modern man. We have made colossal errors in the past years in foreign policy that will cost tax payers billions of dollars for years to come. The Korean war, he said, already was the fourth most costly war in the history of

(Continued on page 60)

N.Y.-N.J. conference to emphasize selling

The theme, dynamic selling, will accent the 1952 New York-New Jersey Regional Gas Sales Conference sponsored by A. G. A.'s Residential Gas Section. The meeting, to be held at the Monmouth Hotel, Spring Lake Beach, N. J., June 23-24, has been planned to benefit directly the 200 gas utility and appliance sales representatives expected at the conference.

Robert N. Laux, manager, business development, Kings County Lighting Co., Brooklyn, chairman of the Regional Gas Sales Council, will preside at the opening session on Monday.

Modernity now is a way of life. Foremost among the new appliances contributing so appreciably to the new trend in living is the automatic gas laundry dryer. Norman Millard, Bendix Home Appliances, is ably suited to condense the many advantages of these new load builders in capsule form for the delegates. Margaret Doughty, of Bendix, and Susan A. Mack, Boston Consolidated Gas Co., will present a demonstration of the value of the feminine touch in successful laundry promotions.

Gas refrigeration for many years has been one of the "big three" in residential



Chairman Robert N. Laux will preside at the opening session of the N. Y.-N. J. Regional Gas Sales Conference. Vice-Chairman Hugh L. Wathen will preside the second day

uses of gas with a single manufacturer battling competition from many giants. For the past twenty-seven years, Servel Inc. has been the lone manufacturer in this field, but the Rheem Manufacturing Co. has announced their intention of producing a gas refrigerator. A discussion of this organization's plans and programs will be presented by Carl H. Horne, sales manager of the refrigeration division of Rheem, under the title, "A Look to the Future."

The concluding speaker on the first



day's session will be Harold Jalass, vice-president of Cribben & Sexton, Chicago, nationally-known for his promotional "know how" and his ability to get his story across to an audience in an inspiring manner. Mr. Jalass will discuss "Automatically Yours" which will be devoted to his ideas and recommendations regarding the promotion and sale of automatic gas ranges to offset competitive efforts for this vital market.

Hugh L. Wathen, sales manager,

South Jersey Gas Co., Atlantic City, as vice-chairman of the council, will preside at the Tuesday morning meeting. The second day's session will get underway with an effective and dramatic presentation on the automatic gas water heater, which is the most lucrative appliance utilities have to sell. This important subject will be discussed by James F. Donnelly, assistant general manager of the A. O. Smith Corp., Kankakee, Ill., who has devoted a major share of his business career to gas water heating. The title of Mr. Donnelly's address will be "Hot and Cold."

Albert P. McNamee, *McCall's Magazine*, calls on hundreds of dealers each year in his capacity as manager of home appliance marketing for the magazine.

He recently completed one of these surveys that took him into nearly every state in the nation. He will report what he found appliance-wise in a talk "What's Cooking."

The lack of trained sales personnel in adequate numbers poses a serious problem to the gas industry, and is a substantial road-block in our efforts to increase gas loads. Numerically, gas company retail salesmen are far below pre-war levels, not to mention the caliber of many such salesmen. This and other important problems relating to sales personnel will be discussed by H. D. Valentine, manager of sales promotion, The Peoples Gas Light & Coke Co., Chicago. This is one of the companies in the nation whose sales force is at an all-time high, and where gas

appliance sales and gas loads show continuous increase year after year.

For the past several years, under the A. G. A. PAR program, nearly one million dollars is being spent each year in A. G. A. consumer national advertising. A colored sound-slide film featuring types of ads, media, a review of last year's advertising, and a preview of the 1952 program will be presented by the National Advertising Committee of the American Gas Association. This film, which offers sales executives many worthwhile promotional helps, will be the concluding feature at Tuesday's session.

Those attending the conference will participate in the friendship or hospitality room, sponsored by gas appliance manufacturers.



a PAR activity

Gas refrigerator sales are to be accelerated by one of the most unusual campaigns in history, backed by the American Gas Association. Cooperating with Servel, A.G.A. is promoting the all-new Servel Gas Refrigerator with a thoroughly rounded program advanced by the theme, "Open the Door!"

Self-telling, self-selling features come into play within the gas refrigerator—once milady is coaxed into opening the door. The campaign, which is part of A.G.A.'s PAR program of promotion, advertising and research, links the sales forces of the manufacturer, gas utilities and gas appliance distributors and dealers throughout the country. It features a wide selection of models, competitively priced to suit every family and every budget. Campaigning will continue for 92 sales-making days, from June 1 through August 31.

Merchandising aids include mailing pieces, newspaper advertisements, artificial food displays, demonstrators and sales training aids.

Advertising and display materials are integrated with the "Open the Door" theme, heightened by A.G.A.'s unusual four-color photographic advertisement scheduled to appear in *The Saturday Evening Post* on June 28 and to reappear for further impact in *Life* on July 28. This unusual "shock treatment" advertisement already is stimulating trade talk. Servel advertisements will appear in five full color pages of *The Saturday Evening Post* and four full color pages

in *Life* totaling 45,950,000 sales message impressions from April through September.

Display materials have been designed to tell the "self-service sales story." Forty-eight colorful pieces in the kit are designed to sell the various features of the new line of gas refrigerators. Included are a full-color, life-size display showing an attractive housewife with an armload of groceries just about to open a refrigerator door; counter cards; paper banners; jumbo price tags; pennants; mounted igloos hailing the "miracle of ice from heat" and several special colorful "Kleen-Stik" strips designed to coax housewives to open refrigerator doors and see what's in store for them.

Reasoning behind the sales program simply is that—until you get a potential woman customer to open a gas refrigerator door you cannot sell her a thing. Gleaming white porcelain gas refrigerators are beautiful—but silent in sales talk as they are silent in operation.

After sales display materials, and actual salesmen, have encouraged women to open gas refrigerators with natural-action doorhandles, the salespieces can be seen and read. Inside the refrigerator colorful signs serve as constant sales reminders to customers and salesmen. These signs are right on top of the spots they describe with point-of-purchase advantages. Such features include full-width freezer section; odds and ends storage; butter conditioner and two dew-view fresheners. Moreover, the customer is reminded that Servel operates with

(Continued on page 56)

Refrigerator drive opens

Editors hear "CP" range highlights



Hugh H. Cuthrell, president, The Brooklyn Union Gas Co., praised the gas industry as the nation's sixth largest and fastest growing



Harry Swenson, display and home planning director, The Peoples Gas Light and Coke Co., cited practicality and beauty in ranges

Tomorrow with the American Family," theme of the third annual editors' "CP" conference, highlighted addresses and discussions on modern kitchens, new developments and suggested features for improving automatic gas ranges. Approximately two hundred representatives from leading consumer and trade publications, gas utilities and range manufacturers attended the meeting, sponsored by the Gas Appliance Manufacturers Association, May 5 at the Hotel Pierre, New York.

"Where there were seven million gas ranges being used in the country 25 years ago, today there are 29,000,662," Julius Klein, "CP" chairman, and president, Caloric Stove Corp., said in his welcoming address. He mentioned that GAMA includes more than six hundred manufacturers and various other segments of the gas industry. Performance requirements of "CP" ranges are standards upheld in addition to those of the American Gas Association and American Standards Association, he said.

"With more and more women working, there is a growing realization that homemaking is not a one-person affair," Dr. William S. Smith, professor of family relationships at Pennsylvania State College, told the conference. In his speech, "Changing Times, Changing Habits," he said larger kitchens are appreciated by all members of the family who "are finding out that warm and enduring relationship develops much more easily when family members share kitchen activities."

"Good Things Come Packaged," and



On a panel to discuss automatic gas range trends and developments were: J. J. Brandt, Cribben & Sexton Co.; Paul Berno, Tappan Stove Co.; Tom Gibbons, Magic Chef, Inc.; E. C. Sorby, Geo. D. Roper Corp.; F. H. Trembley, Jr., The Philadelphia Gas Works Co.

Ellen Ann Dunham, consumer service director, General Foods Corp., supported the title of her speech with figures. She stated that the average housewife "opens 575 cans of food and 1,021 other kinds of food packages a year." Labor saving cooking appliances, and food preparations which include frozen, pre-cooked and concentrated foods, have been developed concurrently. The automatic gas range, she continued, is responsible for "the improved efficiency of modern kitchen management."

Today, "every household task must be performed faster," emphasized Mildred Clark, discussion leader and home service supervisor, Oklahoma Natural Gas Co., Tulsa. She observed that appliances and food planning suggestions which enable the homemaker to do her work effi-

ciently and speedily are in demand. Housewives still want to read about colorful, inexpensive meals and, she maintained, articles on timing, temperature, complete broiler meals and news of equipment and gadgets are also of especial interest to the homemaker.

"Price is directed by supply and demand. It is difficult to predict a good buy in advance," reported Beth Bailey McLean, home economics director, Swift & Co., in her talk, "Meal Planning Starts with Buying." The "good buy" must be seen by the meal planner in her own market and must be influenced by what her own family wants, she continued. She said homemakers can achieve best results when adequate time is allowed for elaborate meals, while the simple

(Continued on page 52)

Three-way industry campaign detailed in booklet

a PAR activity

A NEW brochure, "Three Ways to Achieve a Greater Gas Industry," has been issued by the A. G. A. Promotion Bureau under the PAR Plan. The two-color mailing piece presents three timely campaigns designed to improve gas utility public relations and to promote year-round sales of gas.

The sale of gas incinerators is the first method suggested for building dealer and consumer good will. Improved acceptance of gas incinerators in Cleveland, Detroit and Pittsburgh in the short space of a year is used in the

brochure as a promotional lever. A sales training booklet, "Gas Incineration Sales Maker" and a consumer sales booklet in full color, "10 Short Cuts to Quick Clean-Ups" are valuable sales helps offered gas utilities.

Gas househeating is stressed as another means of increasing gas industry prestige. Different sales approaches are presented for gas utilities operating in areas of full restriction, partial restriction and in regions where gas is plentiful. A gas househeating sales maker is available for training salesmen, and one of the Big 10 series of consumer booklets has been prepared for direct mail and counter pick-up. Promotion of all-year gas air conditioning

is offered as the third way of building gas industry reputation. Gas air conditioning sales smooth out the summer valleys in the load curve, insure base loads and add prestige to gas, the fuel, by providing the most modern of services. Widely spaced locations such as Springfield, Mass., Minneapolis, and Cincinnati, where successful all-year gas air conditioning campaigns have been staged, prove that climate is no barrier to public acceptance. Sales helps in the form of an air conditioning sales maker booklet and a consumer booklet, "10 Ways to Take A Year-Round Vacation" are available to help start an all-year gas air conditioning program.

New resale gas tariff service available

Under the sponsorship of the Rate Committee, the Bureau of Statistics of the A. G. A. has collected three copies of all rate schedules, as well as the terms and conditions of service, applicable to sales of gas for resale. In those instances where individual contracts, rather than formal tariffs, are in effect these have been included where available. The material has been provided by virtually all of the important pipeline companies and utilities making such sales.

Although such information is available for most of the companies concerned by reference to material filed with the Federal Power Commission, or by direct contact with the individual company, it has never before been compiled in one place and made available in convenient form. It is expected that its availability will lessen the necessity of requesting comparable information from individual gas companies. Modifications or changes will be obtained regularly

from the individual companies, so that the service will contain current information.

The four loose-leaf volumes are available only to member gas companies of the American Gas Association on a loan basis. They will be forwarded to the company requesting them express collect and should be retained only as long as needed to permit their availability for other gas companies.

FORTUNE smiles at stockholders

With stockholders' meetings growing in size, as shareholders demonstrate an active curiosity about their companies' business and the press gives them a good deal of publicity, a growing number of corporations have grasped the opportunity to create good will through more

gracious staging of these functions.

As these gay and trenchant drawings—selected from among those published on four pages of *Fortune*—suggest, some of what happens at the meetings is not wholly relevant or material. But this is to be expected in view of the wide variety

of types of persons in attendance, arising from the wider interest in corporate affairs. A large proportion of the stockholders who attend meetings show an intelligent and even challenging interest in what their companies are doing, and their number increases every year.



"If I might take up
a moment of your time. . . ."



"I would like to suggest that our stock go higher
so that we can sell them and make money."



"My pilot light goes out."

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Industry news

Home service stars in regional programs

FROM BOSTON TO SEATTLE to Galveston home service highlighted the spring programs of association conventions, sales conferences and in regional workshops.

Home service at association luncheons

Leading off at the annual meeting of the New England Gas Association, a home service luncheon on Friday, March 28, was led by H. Dorothy Keller from the Blackstone Valley Gas and Electric Company. Wallace Dickson of The New England Council discussed business opportunities in New England as background information for home service to use in its contacts with utility customers.

The Mid-West Gas Association also included a home service luncheon on its program, March 31. Marjorie Husted, national chairman of home economics in business of the American Home Economics Association, discussed the factors of change in modern homemaking. Betty Jane Frahm of the Montana-Dakota Utilities Company presided, and also took the lead in a sales program skit, "A Day With Home Service."

At the annual convention of the Southern Gas Association in Galveston, Texas, the home service luncheon speaker was Iris Davenport, incoming national chairman of home economics in business, and woman's editor of the *Southern Agriculturist*. The title of this talk was "Petunias versus Potatoes," potatoes representing work done for everyday sustenance and petunias representing a way of life: new ideas; stimulating contacts; and a range of interests in living. Miss Davenport recommended "picking petunias as well as digging potatoes by broadening interests, deepening understanding and extending horizons."

Mrs. Arville Patison of the Lone Star Gas Co., Fort Worth, presided at the luncheon and also for the home service symposium on the sales section entitled "A Cross-Section of

Home Service." The participants were Lucy Slagle of the Atlanta Gas Light Co. and Mrs. Elyse Van Dyke of the Alabama Gas Corp., discussing television in the two companies. This was followed by an employee-dealer demonstration "Proof Positive" by Julia Hunter and Harriet Pruitt of the Lone Star Gas Co., Dallas.

As a part of the theatrical presentation of the Houston Natural Gas Corp., complete with props, a kitchen and laundry background and professional talent, Winnell Simmons, home service director of the company, presented a phase of the demonstration which is given as a part of the dealer theater schools through the system of the company.

Regional home service workshops

The home service group of the Pacific Coast Gas Association held a two-day workshop, April 23 and 24, in Seattle. Eleven Pacific Coast utilities were represented on the program of which Mrs. Anne Whipple, Seattle Gas Co., was chairman. News flashes of interest from the various home service departments were presented under the title, "The Living Newspaper." In a skit, "To Market, To Market," presented by the home service department of the Victoria Gas Co., Victoria, B.C., Mrs. Nova Graham took the part of a "Mrs. Cautious Shopper," and Antsel Leask, "Mrs. Careless." Home service directors who participated in the program included Rita Calhoun of the Portland Gas and Coke Co.; Mrs. Esther Day, Pacific Gas and Electric Co. and Alberta Moreau, Northwestern Utilities, Ltd., Edmonton, Alberta. Jessie McQueen, American Gas Association's home service director, discussed home service notes from A. G. A.

Equipment demonstrations included "Let's Freeze It," by B. Lawson Miller of Servel, Inc.; "Your Oven Goes Dutch," by Irene Goodhue of the Maytag Co.; "Promote the Automatic Gas Dryer," by Mrs. Helen Tangen of the Hamilton Manufacturing Company; "A Gas Dryer Sales Film," by Frances Alexander of Bendix Home Appliances in San Francisco. Talks by directors of homemaking programs on the Seattle newspapers and radio departments included notes on television by Mrs. Beatrice Donovan of station KING-TV; radio by Mrs. Ruth Fratt of station KOMO; and newspaper publicity by Mrs. Maureen Kelley of *The Seattle Post Intelligencer*.

Industry speakers included N. Henry Gelert, president of the Seattle Gas Co., speaking at the opening luncheon, and William C. Mainwaring, vice-president and assistant to president, British Columbia Electric Railway Co., Ltd., Vancouver, B.C. at the conference-dinner. R. D. MacMahon of the Southern California Gas Co., and general chairman,

sales and advertising section, P.C.G.A.; and Norbert Fratt, Seattle Gas Co., discussed home service and sales. The three subject matter presentations were: "Home Service and Quantity Cookery," by Margaret Terrell, professor in institutional management, University of Washington; "Trends in Homemaking Education," by Edna Martin, director of home economics, Seattle Public Schools, and "Work with Disabled Homemakers," by representatives from the Washington tuberculosis and heart associations.

Cooperating hostesses with Mrs. Whipple were Rita Calhoun of the Portland Gas and Coke Co.; and Beatrice Millar of the British Columbia Electric Co., Ltd., Vancouver, B.C.

A one-day conference of the New Jersey Gas Association home service group was held in Newark on May 7 with Bernice Garrigus of the Public Service Electric and Gas Co. presiding as chairman. Following greetings from V. F. Stanton, president of the New Jersey Gas Association, the subjects presented were: "The Dealer and Home Service," J. G. Berwanger, The Ohio Fuel Gas Co.; "Automatic Gas Water Heating," C. E. Bartlett, manager, Rudd Manufacturing Co.; "The Place of the Range in the Home," by Sol Weill of the Geo. D. Roper Corp.; "The Heart-Saver Kitchen," by Bernice Strawn of *Woman's Home Companion*, and "Put Magic In Your Demonstrations," by Helen Craner of the Corn Products Refining Company.

The annual home service conference of the Wisconsin Utilities Association was held in Milwaukee on May 15 and 16 with Josephine Engel of the Wisconsin-Michigan Power Co. presiding as chairman. Theron Brown, president of the association, opened the conference and the subjects included a report of the "National Home Laundry Conference," "Modern Trends in Home Lighting," "Looking as the Public Sees You," and a talk by Harold Jalass of the Cribben & Sexton Co., discussing "What Home Service Means to a Range Manufacturer."

Regional gas sales conferences

In Pittsburgh on April 7 and 8, Flora Dowler, chairman of A. G. A.'s Home Service Committee, presided at one session and Mary Huck of The Ohio Fuel Gas Co. participated in a sales panel discussion; at the Mid-West Gas Sales Conference in Chicago, April 21-23, home economics was represented by Marjorie Child Husted, national chairman of home economics in business. In the New York-New Jersey Regional Gas Sales Conference to be held in Spring Lake Beach, N. J., June 23 and 24, Susan Mack of the Boston Consolidated Gas Co., and Margaret Doughty of the Bendix Home Laundry Institute, will present "Laundry Promotions," a repeat feature of the Home Service Workshop.

Columbia System to aid dealer sales

COMPANIES OF THE COLUMBIA Gas System have launched an intensified program to promote the sale of gas appliances. The program contemplates the enlargement of dealer cooperation staffs in all the companies, as well as the expansion of home service departments.

The dealer cooperation and business pro-

motion staffs will be recruited in part from the retail sales organization in Pittsburgh and Columbus, Ohio areas. The retail sales activities of the several companies will cease and existing stocks will be liquidated.

James S. Phillips, Columbia's vice-president in charge of sales, announced "We will encourage all dealers in our service territory

to handle complete lines of gas appliances. We will work with them in newspaper, radio, television, direct mail and other phases of advertising and sales promotion. We will intensify our cooking school program and home service activities, and will do market analysis and new product research."

PUAA analyzes gas utility advertising

GAS UTILITY companies are devoting more of their gross revenue to advertising than are electric or combination companies. Last year, this happened for the third consecutive time, according to the 1951 Report on Utility Advertising Expenditures. The report has been prepared by the Public Utility Advertising Association under the direction of W. B. Hewson, vice-president, The Brooklyn Union Gas Company.

The material comprising the report was derived from the replies of 169 gas and electric utilities to the association's 1951 questionnaire. Approximately 55 percent of all electric and 71 percent of all gas users in the United States are represented. The sampling is distributed in such a manner as to justify the belief that

trends and ratios indicated are representative of the entire utility industry.

The report highlights the following significant facts:

Average advertising expenditures per customer for all utilities were 73 cents in 1951 against 70 cents in 1950. Expenditures ranged all the way from \$0.12 to \$2.69 per customer.

Advertising expenditures as a percentage of gross revenue of the average company remained 62 percent in 1951, the same as in the previous year.

Newspaper space, while still the dominant medium, showed a slight decrease from 34.7 percent in 1950 to 33.4 percent in 1951 of total expenditures.

Once again in 1951 the average percentage

of total advertising expenditures for television increased over the preceding year.

Percentage of total advertising expenditures for television:

	All Utilities	Electric Utilities	Gas & Elec. Utilities	Gas Utilities	Comb. Utilities
1950	1951	1950	1951	1950	1951
4.8	6.9	3.7	5.5	5.0	6.6

The year 1952 is expected to show a five percent increase in total utility advertising expenditures over 1951, with combination companies indicating the largest expected increase, 5.3 percent.

Gas Summer Air Conditioning Award for 1952 announced

THE FIFTH ANNUAL A. G. A. Progress Award for Gas Summer Air Conditioning is again underway! Sponsored by the Association's Gas Summer Air Conditioning Committee with Servel, Inc. as the donor of awards, the competition provides every utility—regardless of size, geographic location, or type of gas—an equal opportunity to win an award. The competition awards three lucrative honors to gas utility companies that have been most actively engaged in the promotion and sale of gas summer air conditioning at the local level. The first award of \$500

is given with the A. G. A. Progress Award Trophy, a handsome, distinctive symbol of progress in the field. The trophy is a burnished copper plaque mounted on a polished walnut panel and embossed with the name of the winning utility. The second award is a \$300 check, and the utility placing third receives a \$200 check.

The purpose of the contest is to bring industry-wide recognition to the utility which, during the period of August 31, 1951 to August 31, 1952, made the most effective contribution to the advancement of gas summer air

conditioning.

A distinguished jury will judge the competition. Representatives from the American Society of Heating and Ventilating Engineers, the educational field, gas trade publishers, American Institute of Architects, the building industry press, Gas Appliance Manufacturers Association, A. G. A. Laboratories, and the A. G. A. Residential Gas Section decide the winners. For further information, write to American Gas Association Headquarters, 420 Lexington Ave., New York 17.

Traveling conference room spreads company messages

A BIG ROOMY BUS is the "aspirin" for one of Public Service Co. of Colorado's many post-war headaches. Extremely rapid expansion that has more than doubled company size since World War II created the problem of maintaining close contact with all employees. This was particularly serious in operating departments, whose employees are seldom near main office conference rooms. Today, the converted passenger bus, jumping from line crews to substations, from gas holders to service crews, carries company messages to every employee.

Developed by the education and information department, the idea enables operating employees to talk about company problems with informed discussion leaders; to learn first-hand why certain policies are being followed in the utility industry and in American government. Safety, job improvement ideas, future planned progress are all discussed informally in the novel conference room. Meetings end with workmen and supervisors realizing better the importance of teamwork while on the job.

The value of the traveling conference room is proving immeasurable. Besides the great improvement in employee relationships, the bus travels to the scene of the job, and saves many manhours that would be lost in bringing employees to central meeting places.

Results of the informal meetings have been good because groups are small and the informality stimulates discussion that is so often stifled by self-consciousness.



William Purvis, of Public Service Company of Colorado's gas street department, conducts discussion session in novel mobile conference-room bus recently put into service by the utility's information department

The bus is fully equipped with a daylight movie projector, a portable power plant, and flip charts for audio-visual information dissemination.

An average of 40 persons a day attends meetings in the bus, and schedules are handled so that each program reaches every em-

ployee. John E. Loiseau, president of the Public Service Co. of Colorado, says of the classroom on wheels, "Every person in our company is entitled to have a voice in company plans for the future and current activities. I am happy that we have found this method to exchange information and ideas."

Utility compares natural, manufactured gas



Ann Sopensky of Brooklyn Union's home service section, explains differences between natural and manufactured gas cooking to guests Gertrude Betten, Beatrice Mabry, Mrs. Herlihy and Joe Reynolds



Utility "cast" (l. to r.): Ruth Soule, home service director; Phyllis Weaver, TV demonstrator; Mylo Boulton and Walter Herlihy, masters of ceremonies; Mrs. Walter Herlihy; Dione Lucas, TV star; Ann Sopensky and Nancy Baxter, home service staff

EVER tasted a natural gas cream puff? Newspaper and magazine food and appliance editors, home economists, radio and TV food experts had that opportunity at the reception given by the Brooklyn Union Gas Co., Brooklyn, New York, May 7.

Identical ranges, one using natural gas, the other manufactured gas, kept at the same temperature for the same length of time, produced cream puffs which were equivalent in color and texture. Guests were able to taste as well as see the results and thereby note that there was no difference between cooking with manufactured gas and cooking with natural gas.

Editors learned that, although natural gas does not burn as fast as manufactured gas and requires a slightly longer period to ignite, it

has almost twice the heating value of the manufactured gas. It is non-poisonous and odorless but has an odorant added for consumer protection.

Ranges, baking, broiling and roasting were kept in operation during the entire reception by Ruth Soule, Brooklyn Union's home service director and her assistants.

Dione Lucas, TV demonstrator, star of the "Dione Lucas Show," with Walter Herlihy, the show's master of ceremonies, climaxed the reception with a cooking demonstration. The perfect omelets Miss Lucas prepared for the guests were cooked on a range supplied with natural gas.

During the March-September, six month

change-over period an estimated \$21 million will be spent to convert approximately two million appliances in the gas company's territory to natural gas. Already 300,000 of Brooklyn Union's 925,000 consumers to-be-converted have had their appliances adjusted.

Distribution facilities are expanded by this conversion to a high-heat fuel, William B. Hewson, Brooklyn Union's vice-president, recently said. "By distributing natural gas directly, we will be sending out a gas with double the heating value of our present gas," he maintained. Thus, he stated, the heat units, sent out are doubled and large capital investments that would otherwise be needed for greater distribution are eliminated.

Stress rate increases at annual meeting

POINTING to the swollen costs of doing business, Stewart M. Crocker, chairman of the board, Columbia Gas System, Inc., told stockholders that gas rates charged to Columbia company customers must go up.

"If Columbia Gas System, as a public service company, is to continue expanding its facilities needed to supply the public, we must see to it that our stockholders receive a proper

return," he stated at the system's annual meeting.

Mr. Crocker went on to cite figures, showing that the unit cost of gas bought in the Appalachian area is up about 19½ percent; the unit cost of gas bought from the Southwest is up 20 percent; wages and benefits are up 44 percent; federal income tax rates are up nearly 38 percent."

Applications for higher rates are now pending before the Federal Power Commission and before several state public utilities commissions.

George S. Young, president, told stockholders that gas supplies had improved to the point where some of the househeating installation restrictions can be relaxed.

Milwaukee Gas Light celebrates 100th anniversary

NOSTALGICALLY reviewing the last 100 years, and looking forward to a prosperous future, the Milwaukee Gas Light Co. is celebrating its first centennial this spring. The gas company, which is the oldest public utility in the city and one of the oldest in the state of Wisconsin, developed from humble beginnings, and has expanded with the growth of Milwaukee.

In a recent issue of *Gas News*, Milwaukee Gas Light's house magazine, the early struggles of the midwestern utility are retold. The first street lighting ceremony on November

23, 1852; the construction of gas plants throughout the city; the constant effort to keep abreast of the city's lively growth—all are recounted in detail.

The utility is as proud of its part in supplying dependable fuel for the many industries and commercial establishments centered in Milwaukee as it is of the growth of its many special customer services.

Recent history, including the important contributions of home service, the improvement of appliance merchandising, the advent of natural gas in 1949 are also spotlighted in the pano-

rama of the years.

The utility's employees are looking forward to even greater progress during the next century in order to keep up with the growing importance of Milwaukee in the nation's economic life. At the helm are company officers: Dudley B. W. Brown, president; Paul J. Imse, vice-president and secretary; Erwin C. Brenner, vice-president in charge of operations; Bernard T. Franck, vice-president in charge of sales; E. Gordon Black, vice-president and treasurer; and John J. Dolan, vice-president in charge of personnel.

Fashion films offer Spring Style Show tie-in

a PAR activity

A SPECIAL series of 12-minute motion pictures, especially prepared for television, is now available for gas utility use. The series, called "Fashion Previews," has been produced by Clayton W. Cousens Productions, and features Frances McQuire, a commentator with wide television experience.

To date, the films have been used successfully by gas companies in several cities in the United States in connection with the Spring Style Show. Under special arrangement, the A. G. A. Promotion Bureau was able to obtain

a special discount for the industry.

The film series consists of 13 12-minute shows featuring spring and summer fashions. It may be used on television, then retained for use in home service demonstrations, school programs, women's groups, and in cooperation with local department stores.

The format of the shows consists of the appearance of several fashion models in styles featured in national magazines. There is no commercial tie-in, and the only credits given are to leading designers, who give brief interviews on women's fashions.

The films allow a start and finish commer-

cial with a third commercial spot one-half way through. This gives 2½ to three minutes of commercial time during a 15-minute program. By cutting closing announcements, an additional 30 seconds can be gained for utility commercials.

The series of films is excellent for tie-in with the industry's Spring Style Show, for the subject matter assures large feminine audiences.

To secure sample film for auditioning, utilities should contact Clayton W. Cousens Productions, 509 Fifth Avenue, New York 17.

Maryland utility wins another safety award

BALTIMORE UTILITY workers are safety-conscious—a fact that can be proved by cold figures. Recently, the employees of the fitting department, Consolidated Gas Electric Light and Power Co. of Baltimore won their third A. G. A. Merit Award.

To qualify for this, the group had to complete a period of one million or more consecutive manhours of work without a disabling injury accident. The award was earned during the period from December 10, 1950 through

October 31, 1951, a total of 1,093,774 man-hours. The other two awards were earned during the period from June 25, 1948 through August 6, 1950, and represent a total of 2,263,561 accident-free manhours.

Dealer training builds service and goodwill

OHIO FUEL GAS CO., Columbus, like many other utilities, found itself in a tight squeeze during the gas heating boom which followed World War II. For years, the company had sold and installed gas heating equipment, stepping up sales with free inspection and lighting service. During the war, manpower shortages, material curtailments and myriad of woes persuaded the gas company to abandon its merchandising program and concentrate on servicing existing customers.

After the war, the problem continued. Heat-

ing installations doubled, even tripled, throughout the state. In Columbus, the utility's largest district, gas house heating saturation jumped from 25 percent to 50 percent. It soon became clear that free inspection and lighting was a promotion luxury, one which the utility could no longer afford.

Free utility service was limited to gas-air adjustments, and to customers with appliances affected by pressure or line troubles. In an attempt to reduce service-requests, the company began urging customers to use service facilities of dealers and heating contractors.

For the protection of customers, dealers and the utility, a program to indoctrinate these dealers, contractors and their staffs in proper installation and service methods was developed. The purpose of the program was to promote better installation and service practices, and to insure both dealer and customer of satisfactory heating plants with fewer "call backs." Instructors were experienced gas company personnel.

Almost 150 "students" responded to invitations to the first sessions. Classes were broken into groups of about 15, with each group meeting three hours a night, one night a week, for five weeks.

Subjects covered were house piping; flues, vents and connectors; heating equipment installation; controls; trouble shooting and adjustments. Laboratory sessions were conducted in most classes. The lecture room contained a unit heater and demonstration furnace with conversion burner installed. Practice periods were held on thermostat adjustments, safety pilot timing and general control circuit troubles. Old and new controls were shown, and slides illustrated proper installation and venting procedures.

Visual and material aids used included the Ohio Fuel Gas Co.'s *Plumber's Guide*, *A. G. A. Guide for Installers*, draft hood and flue pipe sizing tables, orifice capacity charts, meter timing tables, gas input factor charts and equipment sizing tables, and lists of obsolete controls and replacements.

Throughout the course, the gas company emphasized that it was not trying to set itself up as a regulatory body over heating dealers. Ohio Fuel's only purpose was to teach safe, sound practice, based on its years of experience in the heating field.

Reaction to the training school was favorable from all sides. Future schools are now being planned for Columbus, and seven other operating districts of the company.

English gas men visit Oregon on U.S. tour



British gas productivity team, touring the United States under the sponsorship of the Mutual Security Agency and the Anglo-American Council on Productivity, find the Portland Gas & Coke Co.'s oil-gas and by-products operation noteworthy. Seen with the Oregon utility's president, C. H. Gueffroy, (left) are Arthur Marsden, Southwestern Gas Board, Bristol, and John H. Dyde, Eastern Gas Board, London

New Jersey utility teaches blind to cook

IN ELIZABETH, N. J., a cooking class has been formed. Its members, 11 women and one man, represent as many categories and walks of life as might be found in any gathering—a businessman, a housewife, an organist, a factory worker, a bride. They have one big thing in common, however: All are blind.

Sponsored by the American Red Cross, the class is being instructed by Mrs. Mary N. Hall, home service director of the Elizabethtown Consolidated Gas Co., and her assistant, Mrs. Leila M. Sibbersn. The sessions, held in the evening once a week, are conducted in the utility's testing kitchen. Special pots, pans and safety gadgets protect the cooks against accidents, yet assure good results. Recipes and instructions, in Braille and sound recordings, have been prepared and plastic labels written in Braille have been applied to all cans and cartons. The recipes being used are for the basic dishes in a well-balanced menu, with variations to suit special occasions and the individual's taste.

The class is learning to make several va-

ties of casseroles, bacon and eggs, jellied salads, tea cake and muffins and several other items. At the concluding session, the class will bake and frost a layer cake as the piece de resistance for a gala party, to which husbands and friends have been invited.

For her contribution to the program, and for her success in adapting and interpreting the cooking lessons, as well as for introducing methods and devices to reduce the danger of accident, the Red Cross has awarded a citation to Mrs. Hall.

She has introduced pans with lids that clamp shut, non-spillable measuring cups, timers marked in Braille, and oven regulators with knobs indicating the varying degrees of heat. Another gadget is a rolling pin that can be manipulated with one hand, leaving the other hand free.

The Elizabethtown Consolidated Gas Co. has offered to install oven regulators with knob indicators in the homes of blind persons throughout the area it serves without charge.

The class was originally formed as a

memorial to Louis Braille, the inventor of the Braille system, who died one hundred years ago. Because of its success, it will be used as a model for other groups throughout the state.

Led by the American Red Cross, the New Jersey Commission for the Blind and the Elizabethtown Consolidated Gas Company, many civic groups have contributed to the cooking school's success. Equipment was purchased with funds donated by the area's Lion's Clubs, and the Union County Education Week for the Blind Committee. The Red Cross volunteer motor service, aided by the junior league group, provided transportation to and from the gas company's testing kitchens.

Elizabeth, N. J.'s efforts to give the blind housewife positive "help to help herself" is a commendable, outstanding example of civic cooperation. Mrs. Hall's part in the program shows how big a role the gas company's home service department can play in important community activities. For the gas industry, it proves how much a utility can be a good neighbor.

Brockton and Taunton utilities merge

THIS MASSACHUSETTS Department of Public Utilities has approved the merger of the Taunton Gas Light Co. and the Brockton Gas Light Company. The merged company will be known as the Brockton-Taunton Gas

Films glamorize gas

a PAR activity

GLAMORIZE THE GAS STORY," urges

American Gas Association. A. G. A. backs up its plea by offering a series of six five-minute movies, designed to help the local utility sell the economy and efficiency of gas cooking. The movies are in color, sound, 16 mm., and may be shown individually or grouped. They are called "Let's Make a Pie," "Let's Make a Cake," "Let's Make a Sandwich," "Let's Make a Salad," "Let's Make a Casserole," and "Let's Make a Meal in 20 Minutes."

The movies have been prepared specifically for home economics classes in local schools, home service groups, store cooking schools, women's clubs and employee education.

They are also very adaptable to television. They can be used for a five-minute spot, during which 40 seconds is provided for the local utility commercial. Run together in groups of two or three, they provide a good basis for an interesting television cooking lesson. Some companies insert them in their half-hour or 60-minute TV broadcasts.

Price of the six films, all on one reel, is \$360, with a 1/3 discount for PAR subscribers. For further information, write to H. Vinton Potter, A. G. A. Headquarters, 420 Lexington Ave., New York 17.

Company.

There have been no immediate changes in the operations of either company, and neither employees nor customers will be affected. The

merger will put the company in a stronger financial position and enable it to improve its service to customers, particularly with the coming of natural gas.

Home economists meet on West Coast



At the Pacific Coast Gas Association's Home Service Workshop are (front row, l. to r.): Marjorie Sedgewick, Vancouver; Alberta Moreau, Edmonton; Christabel Grauer, Hollywood; Rita Calhoun, Portland; Anne Whipple, Seattle; Beatrice Miller, Vancouver; Barbara Eman, Portland; Katherine Rathbone, Los Angeles; Wayne Fitkin, Santa Barbara; Virginia Belden, Coolidge, Ariz. (Standing, l. to r.): Frances Alexander, San Francisco; Woodrow Wilson, Portland; Irene Goodhue, Newton, Iowa; Esther Day, Oakland; Harriet Smith, Compton, Calif.; Shirley Gilbert, Santa Monica; Helen Tangen, Two Rivers, Wis.; Antisel Leask, Victoria; B. Lawson Miller, Evansville, Ind.; Nova Graham, Victoria; Avery Willis, Seattle. Third row: W. H. Cole and R. D. McMahon, Los Angeles; N. O. Pratt, Seattle; Clifford Johnstone, San Francisco; Jessie McQueen, New York; W. M. Knorr, Oswego, Ore.; C. W. Steele, Portland; Gilbert Schade, Seattle; Frank Reid, Portland; Stuart Ring, Wenatchee; Seward Abbott, San Francisco.

Appalachian short course planned for August

THE TWELFTH Appalachian Gas Measurement Short Course will be held at West Virginia University, Morgantown, August 25, 26 and 27. The short course is sponsored annually by the West Virginia Oil and Natural Gas Association.

The program, arranged by C. H. Whitwell, Equitable Gas Co., chairman, and other mem-

bers of the program committee, includes several talks on general aspects of the natural gas industry. There will be held also a number of classes on the phases of measurement and regulation by representatives of operating and manufacturing concerns. Special classes in fundamentals, especially planned for newcomers to the industry, will be featured. An impor-

tant attraction of the short course will be the exhibit of measuring and regulating equipment, a joint venture of the major companies in the field.

Further information may be obtained from C. B. Heist, chairman of the general short course committee, The Manufacturers Light and Heat Co., Pittsburgh, Pennsylvania.

Microwave to connect pipeline stations

A MULTICHANNEL microwave system, providing radio communication among all points along Texas Eastern Transmission Corporation's pipeline, is now being constructed. B. D. Goodrich, Texas Eastern's vice-president and chief engineer, has announced that the system will extend all along the pipe-

line from Shreveport to Connellsville, Pa., and then on to Linden, New Jersey.

The communication system will consist of 56 microwave stations with towers varying from a height of 10 feet to 350 feet. It is expected to be in operation this summer.

Plans include installation of telemetering

equipment to provide continuous and instantaneous metering information from any point along the pipeline to dispatching offices and to the general office in Shreveport. Provisions have been made to permit addition of several hundred supervisory control and telemetering functions.

Public utility advertising men gather

PAUL L. PENFIELD, advertising manager of the Detroit Edison Co., has been elected president of the Public Utilities Advertising Association. He was chosen during the sessions of the 31st annual convention of PUAA in Minneapolis, May 8-9. Mr. Penfield succeeds John E. Canfield, vice-president of Wisconsin Power and Light Co., Madison.

Other new officers are Walter G. Heren, Union Electric Co. of Missouri, St. Louis, first vice-president; C. Fred Westin, Public Service Electric and Gas Co., Newark, second vice-president; Charles D. Lyon, Potomac Edison Co., Hagerstown, Md., third vice-president; George Hanel, Connecticut Light and Power Co., Waterbury, secretary; and Mead Schenck, Interstate Power Co., Dubuque, Iowa, treasurer.

Allen S. King, executive vice-president of Northern States Power Co. welcomed the visiting delegates by inspiring them to meet the future confident of the great possibilities that lie ahead. He stressed the importance of confidence in ability, in free enterprise, and con-

fidence in the future possibilities to discharge duties of citizenship in individual territories.

E. Carl Sorby, vice-president of Geo. D. Roper Corp., emphasized the need of management, advertising and sales personnel to realize their advertising responsibility to the public. He stressed the role of the utility as a public service organization. Mr. Sorby told of the need for uniform sales, advertising and promotional standards.

R. D. Furber, director of advertising and public information for Northern States Power Co., discussed the federal project to generate electric power on the Missouri River. Mr. Furber declared that the electric companies in the area are not discouraged because they realize that, when the whole truth is known, federal hydro power will prove to be no cheaper than power generated in fuel burning plants.

Orville E. Reed, Howell, Mich., house organ publisher, emphasized the importance of sound advertising appeals, construction of ef-

fective direct mail letters and preparation of copy.

A highlight of the two-day session was the announcement of the 1952 Better Copy Contest winners. The Better Copy Contest, now 29 years old, is believed to hold the record for consecutive competitions in the advertising field. Entries were judged in 58 classes, covering almost every phase of media of advertising and public information. In all, 174 winners were cited for exceptional utility promotional, advertising, public relations, radio and television programs.

Gas utility companies winning first place awards included: The East Ohio Gas Co. for complete programs; The Cincinnati Gas & Electric Company and Wisconsin Public Service Corp., for newspaper advertisements on a public relations subject; The East Ohio Gas Company and Central Hudson Gas & Electric Corp., for single newspaper advertisements on any subject; and The Peoples Gas Light and Coke Co., Laclede Gas Co., and Coast Counties Gas & Electric Co., for single newspaper advertisements promoting the use of gas.

Other first place award winners were: Natural Gas Companies, Pittsburgh, and Arkansas-Louisiana Gas Co., for single newspaper advertisements selling gas merchandise; Consumers Power Co. and Central Hudson Gas & Electric Corp., for employee newspapers; The New Orleans Public Service Co. and Public Service Co. of Colorado, for direct mail pieces; and Philadelphia Electric Company, New Orleans Public Service Inc. and Southwestern Public Service Co., for printed dealer promotion material.

Winners of similar first awards also included: Laclede Gas Co. for window displays; The Cincinnati Gas & Electric Co., and the New Orleans Public Service Inc., for interior displays; Southern California Gas Co., Laclede Gas Co., and Portland Gas & Coke Co. for car and bus cards and truck posters. The Hartford Gas Co. won a first place award for outdoor advertising and the Milwaukee Gas Light Company was winner of the first place award for television.

Midwest industrial men elect leaders



New officers of Midwest Industrial Gas Council are (left to right): Nicholson Wade, Indianapolis, vice-chairman; Ralph Hoberg, Chicago, chairman; Alexander McCormack, Elgin, Ill., secretary-treasurer

Utility service crew fights plane crash disaster

BROOKLYN UNION Gas Company can be proud of its customer service department. Well-organized, smoothly functioning day in and day out, the staff showed its true colors on the Saturday morning early in April when a C-46 cargo plane, bound for Idlewild airport, crashed in Jamaica, New York. Seconds after the crash the utility's customer service department, summoned by the police, sprang into action.

Orders went out to special radio cars, the street section was notified, and in a matter of

minutes, men and vehicles converged on the scene of the blazing disaster.

Moving in like a well-ordered combat team, the servicemen surveyed the damage and mapped a course of action. Fire was consuming two houses, two more were ablaze, and many more were in great danger. Despite terrific heat generated by the flames, the servicemen braved fire and falling timber to shut off gas service. With the aid of firemen, a hole was cut into the wall of the most seriously burning house, and Brooklyn Union men were

lowered into the basement to discontinue service at the meter. Other servicemen canvassed the neighborhood, checked gas supply and household equipment. Maintenance units stood by with necessary equipment to cut off service from the street should the need arise.

Brooklyn Union played a great part in helping to avert what easily might have been an even greater tragedy. Such utility organization and know-how proves again that the gas company's high standards of training and service benefit the community.

Bibliography outlines business heritage

AN INDEX TO ARTICLES in print which interpret the American system in business and industry is now available from the Cleveland Public Library. Entitled "Our Business Heritage," the bibliography lists books, magazine articles and special reports on the chang-

ing perspectives of businessmen toward their responsibilities; business history in the United States; business leadership. Also included is published material on selling the idea of free enterprise; teaching the facts of our economic system to employees and the specific programs

of various companies in this field.

Copies of the bulletin are available for ten cents from Rose L. Vormelker, business information service, Cleveland Public Library, 325 Superior Ave., Cleveland 14, Ohio.

File pipeline application

THE TEXAS-OHIO Gas Co., Houston, has filed application with the Federal Power Commission requesting authority to import natural gas from Mexico. Application has been filed also for a Presidential permit for the construction, maintenance and operation of the facilities which would be used for the proposed importation.

FPC hearings on Texas-OHIO's pending ap-

plication for authority to construct a natural gas transmission line extending from Texas into West Virginia were adjourned April 17 until further order of the Commission, after the staff counsel filed a motion to dismiss the proceeding.

Texas-OHIO said that it plans to purchase 200 million cubic feet of natural gas per day from Petroleos Mexicanos, a Mexican corpora-

tion which owns and controls large gas fields in the State of Tamaulipas, Mexico.

Texas-OHIO's proposed 1,439-mile 30-inch pipeline, for which an application was filed last October, would originate at the Rio Grande River on the U. S.-Mexican border in Hidalgo County, Texas and extend through Arkansas, Mississippi, Tennessee, Kentucky and Ohio, terminating near Spencer, W. Va.

Manufacturers announce new products

● Pres-toe, a new device which makes it possible to open the broiler by pressing a foot pedal, is one improvement in the new line of ranges by Tappan Stove Company. Others include an easily detachable oven door for simpler cleaning, and a broiler drawer that

pulls out the full length of the broiler pan.

● Combination valve (V5151) has been developed by Minneapolis-Honeywell Regulator Company. The new device combines modulating and snap-action gas valves in

one unit to provide automatic operation of space heaters, wall heaters, floor furnaces. The valve controls flow of gas to the burner and eliminates need for operating the heater manually.

Oil dictionary

THE PETROLEUM DICTIONARY makes available in one easy-reference volume a guide to the language of the oil field which will be equally useful to the stenographer or white-collar worker in a New York skyscraper office building and the "derrick monkey" or "roust-about" in Texas or Saudi Arabia.

Included in the reference volume are more than 6,000 technical and non-technical words and expressions which comprise the everyday language employed in the four major branches of the industry: exploration, production, pipelining and refining.

Of the 6,000 entries, more than one-third are recorded here for the first time as words or expressions native to the oil industry. Many of the definitions of technical terms were formulated with the assistance of the foremost specialists in the petroleum industry.

THE PETROLEUM DICTIONARY. By Lalia Phipps Boone. 338 pages. Cloth bound. Published by University of Oklahoma Press, Norman, Okla. \$5.

Suppliers gather in Los Angeles



Suppliers meet for breakfast during Natural Gas Conference, May 13. At head table, left to right: Alex Wolfe; H. Leigh Whitelaw; Warden Joseph H. Lewis; Mayor Stephen D. Day; and Louis Rutherford.

Current statistics of the gas industry

- Utility gas sales—March, 5,344 million therms, up 0.64 percent from 5,310 million therms in February and up 12.7 percent over 4,741 million therms in March 1951.
- Gas-fired central heating equipment—April GAMA preliminary figures, 40,200 units, up 15.18 percent over 34,900 units in March, but down 13.18 percent from 45,500 units in April 1951. (Breakdown: 22,000 gas-fired furnaces—forced warm air and gravity; 4,000 gas-fired boilers; 14,200 gas conversion burners.)
- Oil-fired burner installations—GAMA figures for first four months of 1952, 154,675 installations.
- Domestic gas range shipments—Preliminary GAMA figures for April, 173,600 units, down 3.69 percent from 180,100 units in March and down 22.8 percent from 225,000 units in April 1951.
- Electric range shipments—GAMA figures, March, 108,800 units, up 46.4 percent over 74,300 units in February, but down 39.2 percent from 178,900 units in March 1951.
- Automatic gas water heater shipments—Preliminary GAMA figures, for April, 136,900 units, up 3.1 percent over 132,200 units in March but down 21.3 percent from 199,400 in April 1951.
- Electric storage water heater shipments—March GAMA figures, 59,500 units up 6.1 percent from 56,100 units in February, but down 43.5 percent from 105,400 units in March 1951.

Denver heating conference successful

THE NATIONAL Warm Air Heating Association's recent training school for heating contractors and technicians in Denver was the largest in the 1952 national series.

The school attracted over 200 "students"

from almost every corner of the Rocky Mountain region. Guy A. Vorhees, who instructs similar conferences throughout the nation for the Warm Air Heating Association, conducted the two-day session, devoted primarily to per-

imeter heating and small pipe heating. Attendance was promoted by the Denver Indoor Conference committee, of which Roy G. Monroe, Public Service Co. of Colorado, is treasurer.

New slant on combustion by Lewis, von Elbe

COMBUSTION, *Flames and Explosions of Gases* is a second edition only insofar as the title is concerned (the first was issued in 1938). But it is an entirely new book in content and treatment, designed specifically for the scientist and for those engaged in combustion research.

The concept of the book rests on an approach through physical chemistry rather than

engineering. Although this method sheds new light on the complex phenomena of combustion, it furnishes very little practical aid to the gas engineer.

The designer of gas burners will find sections of the book worthwhile because of the chapter on burners and their performance with interchanged fuels.

It is impossible to come away from the book

without a better grasp of combustion theory in general. This is in no small way due to new material on chemical kinetics of the various combustible gases and oxygen.

COMBUSTION, FLAMES AND EXPLOSIONS OF GASES, by Bernard Lewis and Gunther von Elbe. Cloth bound 6 x 9 inches, 795 pages, 355 figs., tables, appendix and index. Academic Press, Inc., New York. \$15.50.

Indiana utility expands

THE BOARD of directors of Citizens Gas and Coke Utility, Indianapolis, has announced construction plans for a new distribution plant.

General Manager Thomas L. Kemp said that the supplemental distribution facilities, at an estimated cost of \$218,000, would be constructed out of earnings. Scheduled for com-

pletion about September 15, the plant is to be constructed on acreage already owned by the utility.

A.G.A. announces new publications

LISTED HERE are publications released by American Gas Association during April and May up to closing time of this issue of the MONTHLY. Information in parentheses indicates audiences for which each publication is designed.

Laboratories

● Design Studies of Gas Deep Fat Fryers, Research Bulletin No. 66 (for manufacturers and utilities). Sponsored by the Committee on Industrial and Commercial Gas Research. Available from A. G. A. Laboratories for \$2.00 a copy.

PAR

● PAR Briefs (for all gas companies). Prepared by the PAR Committee, and available from A. G. A. Headquarters, free.

Research

● Performance of Gas-Fired Forced-Air Heating System in Research Residence No. I,

University of Illinois Engineering Experiment Station Bulletin Series No. 397 (for gas company and manufacturer company delegates and special industry mailing lists). Sponsored by the Committee on Domestic Gas Research, prepared by Seichi Konzo, George H. Green, Robert W. Roose, and Morris E. Childs. Available from A. G. A. Headquarters for 60 cents.

● Selection of Oils for Carbureted Water Gas, Institute of Gas Technology Research Bulletin No. 9 (for manufactured gas companies). Prepared by E. S. Pettyjohn and H. R. Linden, available from A. G. A. Headquarters and Institute of Gas Technology for \$4.00.

● Measurement of Gas Law Deviations with Bean and Burnett Apparatus, Institute of Gas Technology Bulletin No. 13 (for those interested in a comprehensive, comparative study of the two apparatus; an instruction manual and guide book for students and industry personnel). O. T. Bloomer is the author of the bulletin. It is

available from the Institute of Gas Technology.

● Physical-Chemical Properties of Methane-Nitrogen Mixtures, Institute of Gas Technology Research Bulletin No. 17 (for natural gas utilities and pipeline companies). Prepared by O. T. Bloomer and J. D. Parent. Available from A. G. A. Headquarters and Institute of Gas Technology for \$3.50.

● Prospective Methods and Estimated Costs for Removing Excess Nitrogen from Natural Gas (for natural gas utilities and pipeline companies). Prepared by P. V. Mullins and R. W. Wilson, available from A. G. A. Headquarters for \$1.00.

Utilization Bureau

● What's the Score? (for commercial sales departments and commercial kitchen operators). Sponsored by the Committee on Comparison of Competitive Services. Available for 20 cents from A. G. A. Headquarters.

OBITUARY

Douglas C. Stewart

safety supervisor for Niagara Mohawk Power Corp., Buffalo, died on April 5 after a brief illness. He was 54 years of age.

Mr. Stewart attended the Hamilton (Ontario) Collegiate Institute and Massachusetts Institute of Technology, from which he was graduated in 1922. Since that year, Mr. Stewart had served Niagara Mohawk or predecessor companies continuously. Starting as a draftsman, he advanced to engineering assistant, designer, surveyor of accident prevention problems, safety supervisor for the utility's western division. In 1941 he was named supervisor of safety for the entire Niagara Mohawk System.

Mr. Stewart had been a member of the American Institute of Electrical Engineers; member and former chairman of the Edison Electric Institute Accident Prevention Committee; member and secretary of the Public Utility Section, National Safety Council. Active in American Gas Association, Mr. Stewart had served on the A. G. A. Accident Prevention Committee, was chairman of the Statistics Subcommittee and was an Association representative to American Standards Association.

Mr. Stewart is survived by his widow and a brother, Roderick, of Park Ridge, Illinois.

Leo Peachey
superintendent of appliance testing and training of the customers' service department, Boston Consolidated Gas Co., died suddenly on May 5.

Mr. Peachey joined the Boston utility in 1924 after serving the Philadelphia Gas Works Co. for some time. He began as a fitter, and by 1950 became superintendent of the company's testing and training section, the position he held at the time of his death.

Mr. Peachey was a member of the American Gas Association and New England Gas Association. He was chairman of the NEGA service managers' group.

He is survived by his widow, one son, three daughters and three brothers.

E. A. Furkert

founder and president of Gas Appliance Service, Inc., Chicago, died on March 23, the victim of a heart attack, at the age of 66.

Mr. Furkert had been active in the industrial gas appliance field for over 40 years. He was instrumental in the development of industrial equipment, and he designed and patented several inventions, including the direct fired air heater, the Furkert Gas/Air-mixer and gas burners.

In 1911 Mr. Furkert came to the United States from Germany for the Selas Company. In 1922, he formed the E. A. Furkert Co. in Chicago, and continued as western representative of the Selas Corporation of America until 1944. In that year, the Gas Appliance Service, Inc. was founded, with Mr. Furkert at the helm.

A member of A. G. A. and the Midwest Industrial Gas Council, Mr. Furkert was a cor-

poration delegate to GAMA.

He is survived by his widow, Mrs. Annette Furkert and a son, Paul.

Kerien L. Fitzpatrick

manager of public relations and advertising of The Dayton Power and Light Co., died May 15 at the age of 66.

Mr. Fitzpatrick joined the Dayton utility in 1912 as a salesman. He was manager of the gas and electric shop from 1920 to 1933; was appointed sales manager in 1937 and assumed his last position in 1945.

Mr. Fitzpatrick recently served as regional chairman of the P.U.A.A.

Chester J. McMahan

superintendent of production for the Pittsburgh Group of the Columbia Gas System, died on May 9 at his home in Washington, Pennsylvania. Sixty years old, he had been employed for more than forty years by Columbia Gas System companies.

Mr. McMahan started with The Manufacturers Light and Heat Co. in 1911. In 1928 he was made a division superintendent and in 1930, Columbia's Pittsburgh Group made him assistant superintendent of production. In 1934, he became superintendent of production.

Mr. McMahan is survived by his widow, a son and a daughter, two sisters and a brother.

Earl W. Lyons

supervisor for the Michigan Consolidated Gas Co., Detroit, died of a heart attack in Granite City, Ill., shortly after he was taken off a train. Mr. Lyons was stricken shortly after he boarded the train at St. Louis on his way home from Texas.

Coke sales to be dropped by pioneer utility

THE ROCHESTER GAS and Electric Corp. has announced that it will discontinue the direct sale of coke. Although the utility will continue to manufacture coke for a time, it will turn over all sales activities to two concerns which have been in the fuel business in Rochester for many years.

Rochester Gas and Electric was one of the pioneers in the United States in marketing by-

product coke as a domestic fuel, beginning in 1906. Sales rose steadily, and during World War II, much of the company's supply was taken over for defense needs. During the last few years, the utility has shipped almost a half a million tons to steel mills throughout the country where it was used to further the defense effort.

The introduction of natural gas into the

area, as well as the development of new and improved methods of manufacturing gas has gradually reduced the amount of coke available. In view of the ultimate abandonment of coke ovens in manufacturing gas, Rochester Gas and Electric believes it to be in the best interest of its customers to turn this business over to the city's solid fuels companies.

Private enterprise to advertise deeds

WHEN PRIVATE industry reports to the nation during the Production for Freedom celebration, the American people will learn of their country's vast output for defense and prosperity. The celebration, which will be held throughout the nation from September 7-13, 1952, will take different forms, suited to individual cities and regions. There will be industrial fairs, service club programs, newspaper advertising, and radio promotions. In all programs, however, American business will be saluted for its achievement in building America into a fortress of the free world, and at the same time maintaining high standards of prosperity.

To make the Production for Freedom celebration successful, the cooperation of all elements of industry, business, and agriculture must cooperate at the local level. The celebration offers gas utilities the opportunity to tell the history, contributions and future plans of the company and the gas industry to their communities. Local utilities are encouraged to participate by sponsoring exhibits, displays, advertising and open houses.

On the national level, the entire program will be coordinated in a series of network radio programs, magazine stories and national advertising campaigns.

Safety Council cites

THE PEOPLES NATURAL Gas Co., Pittsburgh, has been selected as the utility which has contributed most to the establishment of a 1951 safety record. In a recent contest sponsored by the National Safety Council, 20 public utilities competed for the award, presented recently to Peoples Natural Safety Director, Leo Nuhfer.

Peoples Natural Gas Co. won with a low frequency rating of 1.26, and a severity rating of only .03. Christy Payne, Jr., the company's vice-president, cited the utility's Imperial Station, which chalked up a record-breaking 570,911 hours worked without a lost-time accident.

Manufacturers announce personnel changes

● **Coleman Company, Inc.**—Jess L. Moore is now director of market research for the Coleman Co., Wichita, Kansas. He joined the company in 1947 as a district sales representative, later becoming regional sales supervisor. For the past two years he has been national sales manager and a special representative of the company in Washington, D. C.

Mr. Moore is active in the Institute of Cooking and Heating Appliance Manufacturers, Gas Appliance Manufacturer's Association and National Warm Air Heating and Air Conditioning Association.

● **Rheem Manufacturing Company**—Dr. William R. Hainsworth has joined the Rheem Manufacturing Co., to serve in the

engineering laboratories at Whittier, California.

Dr. Hainsworth was previously vice-president and staff consulting engineer for Servel, Inc. One of the world's foremost refrigeration engineers, Dr. Hainsworth received the American Gas Association's Munroe Award in 1933 for his outstanding contribution to the development of the air-cooled gas refrigerator.

Robert Harris has been named assistant manager of Rheem International, a division of Rheem Manufacturing Company. He was formerly general sales manager of the Westinghouse Electric International Company.

● **American Meter Company**—H. V. Beck has been appointed application engineer. Mr. Beck, who has had wide experience in the field of measurement and control equipment, has served American Meter for the past 16 years and was assistant manager of the company's Erie, Pa., plant. Before joining American Meter, Mr. Beck was an assistant professor at the University of Oklahoma.

It was announced also that Bertram S. Truett has been appointed district sales manager in San Francisco, and Edward L. Wynne has been selected as sales representative for the Chicago sales territory.

Mr. Truett started with American Meter in 1937 as a sales engineer. As sales manager, he will cover the area of northern California, northern Nevada, Washington,

Oregon, Idaho and Hawaii. He is a member of ASME, ISA, the Pacific Coast Gas Association, Southern California Meter Association and California Natural Gas Association.

Mr. Wynne has been with American Meter Co. since May, 1951. Prior to his association with the company, he served in the U.S. Army Air Forces and was employed by Minnesota Mining and Manufacturing Company.

● **Chambers Corporation**—E. C. Miehle has been named director of sales for the manufacturer's western distributor in Los Angeles, Gordon E. Wilkins, Inc.

● **A. O. Smith Corporation**—Frank W. Row is now LP-gas sales coordinator. He is a staff member at the Houston (Texas) works.

● **Magic Chef, Inc.**—George Rogers was named internal auditor assistant, and Emil Luepke was appointed manager of the customer accounting department to succeed Mr. Rogers.

Since joining the company in 1950, Mr. Rogers has been in the customer accounting department, serving as manager since last October. Mr. Luepke has been with Magic Chef for 28 years. He will now be responsible for the recording and billing of all product sales, including government contracts.

Personal and otherwise

Gas men win McCarter resuscitation awards

UTILITY EMPLOYEES in Hartford, Conn., and Green Bay, Wis., have been granted McCarter Awards by American Gas Association. The Association gives the award for successfully performing artificial respiration on a patient overcome by gas.

In Hartford, the McCarter Medal was given to James F. McAuley and the McCarter Certificate of Assistance to Sebastian J. Leone.

The award was made for saving the life, by artificial respiration, of Mrs. Yvonne P. Parent. Mrs. Parent, a Hartford housewife, had been overcome by gas, and when found by Mr. McAuley and Mr. Leone, was not breathing. Due to their efforts, she is in excellent health today.

In accepting the medal and certificate, both Mr. McAuley and Mr. Leone credited the

utility's first aid training program for their knowledge of administering artificial resuscitation.

In Green Bay, Wilbert Jensky, gas serviceman for the Menominee and Marinette Light and Traction Co. was awarded the A. G. A. McCarter Medal for saving the life of Mrs. Joseph Zeitz. Mrs. Zeitz had been overcome by gas in her Menominee apartment.

Executives named at American Natural

AMERICAN NATURAL GAS CO., announces the election of Ralph T. McElvenny as executive vice-president and John Dern as general counsel.

Mr. McElvenny has served as financial vice-president and assistant to the chairman of the American Natural Gas Co. since 1945. Mr. Dern is a director of the company and its subsidiary, and is a partner in the law firm of Sidley, Austin, Burgess and Smith, in Chicago.

A graduate of Stanford University, Mr. McElvenny was an attorney for the Guaranty Trust Co. of New York from 1931 to 1933. In 1933 and 1934 he served with the United States Treasury Department. He was then appointed to the staff of the U.S. Securities and Exchange Commission, and held the position of assistant director, utilities division, until he joined American Natural. Mr. McElvenny is a director of American Natural and its sub-

sidiaries, Michigan Consolidated Gas Co., Michigan-Wisconsin Pipe Line Co., Milwaukee Gas Light Co., and Milwaukee Solvay Coke Company.

Mr. Dern has been a partner of the law firm, Sidley, Austin, Burgess and Smith since 1938. He was member of the board of directors of American Light and Traction Co. from 1938 to 1949, and president of The United Light and Railway Co. from 1949 to 1950.

Hulcy is recipient of fellowship award

D. A. HULCY, president of the Lone Star Gas Co., Dallas, president of the U.S. Chamber of Commerce, and last year's A. G. A. president, has been named 1952 winner of the National Office Management Association's fellowship award.

One of NOMA's highest honors, the fellowship award has been presented each year

since 1934, in recognition of outstanding achievement by an executive who has risen through the ranks of office management to a position of high company or community responsibility.

Mr. Hulcy received the award at NOMA's 33rd International Conference in San Fran-

cisco on May 20. The certificate reads in part, "His reputation as a leader in the field of management arises largely from his gift of human understanding, his sound judgement and his practical wisdom. . . . His life has been characterized by a high order of accomplishment. . . ."

Connecticut utility promotes executives

JAMES H. DOAK has been named to assist Vice-President A. S. Jourdan in the Connecticut Light & Power Co.'s new employee relations department, Berlin, Connecticut.

In his new assignment, Mr. Doak will be responsible for job and wage administration. A graduate of the U.S. Naval Academy, he joined Connecticut Light and Power in 1927 as a district engineer. He was promoted to industrial gas engineer in 1929, and held that position until 1949, when he was named ex-

ecutive assistant in the company's sales headquarters, Waterbury. In November, 1950, he was appointed manager of the Danielson district. Mr. Doak is a member of American Gas Association.

W. E. Hughes succeeds Mr. Doak as the new Danielson manager. Mr. Hughes joined the Rockville-Willimantic Lighting Co., a Connecticut Light and Power predecessor, in 1928. He was appointed manager of the East Hampton district in 1937.

Frank J. Mellon, who succeeds Mr. Hughes as East Hampton manager, joined Connecticut Light and Power's sales department in 1924. Assigned to the company's Naugatuck office as branch office salesman in 1927, he was appointed assistant commercial manager in Waterbury in 1930. He became commercial manager in the company's northern division in 1934, the position he has held until the present time.

Buffalo executives promoted

ADVANCEMENT of two top executives of the Republic Light, Heat and Power Co., Inc., Buffalo has been announced. John R. Reeves, vice-president for the last five years, was elected executive vice-president, and

Howard F. Moore, division superintendent of the manufactured gas division, was elected vice-president.

Mr. Reeves working with utility President S. B. Severson, will be responsible for all cor-

poration operations. He was formerly in charge of natural gas operations only.

Mr. Moore will assume other management duties in addition to those as division superintendent of the manufactured gas division.

PAD advisory committee studies restrictions

A SPECIAL 10-man committee has been appointed to advise the Petroleum Administration for Defense on possible changes in the order which restricts extension of natural gas to some areas of the country.

Howard B. Noyes, assistant deputy administrator of PAD in charge of gas transmission and distribution, is chairman of the committee. Other members are: Eskil I. Bjork, Chicago; A. W. Conover, Pittsburgh; Charles P. Crane,

Baltimore; Stuart M. Crocker, New York; E. H. Eacker, Boston; Henry Fink, New York; J. E. Heyke Jr., Brooklyn; W. G. Marbury, St. Louis; J. French Robinson, New York, and H. K. Wrench, Minneapolis.

IGT elects Pettyjohn vice-president, Parent dean

CAPTAIN E. S. PETTYJOHN, director of the Institute of Gas Technology, Chicago, has been appointed a vice-president; Dr. J. D. Parent has been named dean; Henry R. Linden and C. G. von Fredersdorff have been selected as assistant research directors.

An alumnus of the University of Michigan, Captain Pettyjohn has brought to the Institute a wide and varied experience in gas production, teaching, research, sales and administration. His first industry assignment was in coke oven operation for Semet-Solvay Engineering Co. This was followed by engineering study and five years' blast furnace and coke oven operation in Chicago. In 1927, he was named research engineer for the Michigan Gas Association and in 1928 became associate professor of gas engineering at the University of Michigan. In 1933, Captain Pettyjohn became sales and development engineer for Leader Industries and later, chief engineer for Mervin Builder Corporation. He returned to the University of Michigan in 1937 as associate professor of chemical engineering.

Recalled to duty in the U.S. Navy at the start of World War II, Captain Pettyjohn spent the war years in active service. In 1944, he organized the Special Fuels Section, Research and Standards Branch, Bureau of Ships. The next year he went overseas to be-

come head of the Oil Section, U.S. Naval Technical Mission in Europe. For four months, Captain Pettyjohn and his team inspected the German synthetic fuels industry, including synthesis gas production facilities and oil shale installations.

Since he assumed the directorship of the Institute in 1945, Captain Pettyjohn has proved his ability to carry the school's objectives to accomplishment. During his tenure, the Institute has enjoyed noteworthy growth and increase in activity.

Dean Joseph D. Parent who received his Ph.D. in chemical engineering from Ohio State University, served on the faculties of Ohio State, Loyola of Chicago, and Kansas State before joining the Institute of Gas Technology in 1943 as supervisor of the chemical engineering section. He was named educational director when the school's educational program was resumed in 1946, the title he has held until this latest promotion.

A foremost authority on natural gas, Dr. Parent is the author of the Institute's home study course, "Natural Gas—Transmission and Distribution." He is also author or co-author of several IGT research bulletins.

C. G. von Fredersdorff, as assistant research director, will supervise Institute studies on the gasification of solid fuels. He received his

chemical engineering degree in 1944, graduating from the Illinois Institute of Technology with highest honors. After graduation, he joined the Institute staff, but continued graduate studies at Illinois Tech, receiving his master's degree in 1947. At present, he is writing his dissertation for a Ph.D.

Henry R. Linden, as assistant research director, will specialize in the gasification of natural gas condensates and petroleum fractions. Upon graduation from Georgia Tech, where he received his degree in chemical engineering in 1944, he joined the Socony-Vacuum laboratories, Brooklyn, New York. He was employed in correlation of properties of liquid-petroleum fractions, studies of combustion characteristics of petroleum fuels, burner designs, and new methods of combustion calculations. Mr. Linden received his master of chemical engineering degree in 1947 from The Polytechnic Institute of Brooklyn.

In October 1947, he joined the IGT staff as supervisor of oil gasification. Continuing his graduate studies, he will receive his Ph.D. this year. Mr. Linden has written 12 published papers, plus two Institute of Gas Technology Research Bulletins. He also wrote the section, "Combustion Calculations" in the Encyclopedia of Chemical Technology.

Horstman advances at Texas utility

TEXAS GAS TRANSMISSION Corp. has announced the appointment of H. G. Horstman as assistant to the president. Mr. Horstman, has been with the company since 1950 as director of sales and customer relations, has served the industry over 30 years.

Before joining Texas Gas, he was personnel director of Public Service Co. of Indiana. He also served in that company's operations department as assistant to the vice-president, and between 1933 and 1944, as gas and water distribution engineer.

After graduating from Purdue University, Mr. Horstman entered the utility field as a cadet engineer with Northern Indiana Gas and Electric Company. He is a member of American Gas Association.

Natural gas era

(Continued from page 6)

"Apparently," Mr. Hobson continued, "the load value of appliances (such as gas ranges, refrigerators, laundry dryers, etc.) in relation to net revenue has either just been taken for granted or the import of losing this revenue has not struck home as yet." He urged gas utilities "to re-enter the merchandising field, even though it be on a limited basis, to spearhead all sales and service activities in the community in which they serve."

Astronomical reserves of natural gas will keep flowing to appliances and equipment in American homes for decades, with much more to come. That was part of the vista seen in the crystal ball viewed by Claude A. Williams, president, Transcontinental Gas Pipe Line Corp., Houston, Texas, in a talk on "What's Ahead for the Natural Gas Industry." Nor could market demand for gas equalize the supply in the foreseeable future, he added.

Much of the gas supply available for future expansion "now is in the hands of individuals and companies unwilling to sell in interstate commerce," he qualified. This he attributed to the veto of the Kerr bill which would have removed jurisdiction by the Federal Power Commission over the field price of natural gas sold in interstate commerce.

In effect, Mr. Williams said the natural gas industry today parallels "The House That Jack Built." Thriving Gulf Coast industries and additions to major pipelines, he said, "have boosted gas prices to a new peak." In turn, these activities encourage accelerated exploration which Mr. Williams predicts will bring discoveries of greater reserves in old and new potential gas-producing areas. He foresees vast natural gas reserves from offshore drilling on the Louisiana and Texas coasts after the tidelands question is settled, and further substantial quantities from Mexico and Canada.

Between steel pipelines and glass crystal ball, the session concluded under the chairmanship of F. M. Banks, president and general manager, Southern California Gas Co., Los Angeles.

First of two technical meetings was the transmission session, presided over by Joe T. Innis, Transmission Committee chairman and vice-president in charge of operations, Northern Natural Gas Co., Omaha.

Practicality and economy of operation

of the first steam turbine-driven centrifugal compressors used by the gas industry has proved successful, said F. B. Haverfield, superintendent of compressor stations, Transcontinental Gas Pipe Line Corp., Houston. He described Transcontinental's pioneering in 1951 when three such steam stations were built on a 30-inch pipeline system, along with sixteen conventional gas engine driven stations. He said each station furnishes its own auxiliary power, water and maintenance facilities.

Among other devices, the turbines are equipped with over-speed governors which promote safety by preventing excessive speed which may damage equipment. Over-all operating experience, Mr. Haverfield reported, has demonstrated equal performance of steam and gas engine stations. He compared Transcontinental's construction costs, illustrating how the steam centrifugal station investment is cheaper than a gas engine station by about \$45 for each installed horsepower. He attributed this saving largely to elimination of massive foundations, to simplified piping and to smaller buildings and general plant. Although steam turbine stations have added to fuel cost, he said these expenses were outweighed by savings in labor and lubricating oil since it takes fewer men to run the steam plant.

"The Gas Turbine's Place in Gas Pipe Line Pumping," was reviewed by J. O. Stephens, supervisor, development and project engineering, gas turbine development, Westinghouse Electric Corp., South Philadelphia, Pennsylvania. With the installation of the world's first gas turbine to pump natural gas for the Mississippi River Fuel Corporation's 22-inch gas line at Wilmar, Ark., Westinghouse has re-entered the field of gas pipe pumping by internal combustion engines. Mr. Stephens said that his company intends to equal or better the record of reliability established by its own early reciprocating (i.e., steam piston) engines through the use of this new gas turbine.

An unbiased evaluation of the gas turbine as a prime mover in a gas line, he said, was undertaken by a consultant hired to compare prime movers on an over-all economic basis, using as a yardstick a hypothetical gas line 1,000 miles long and comparing the cost for delivering 1,000 cubic feet of natural gas through this line. Conclusions drawn by the consultant were that "the dual shaft regenerative gas turbine driving a cen-

trifugal compressor can transmit gas at a lower cost per unit than the reciprocating engine driven compressor—the important feature of this new prime mover."

Measurement engineers will be enabled to measure gas as accurately as is possible, said Ernest E. Stovall, chairman of the joint A. G. A. and American Society of Mechanical Engineers sub-committee on Testing Large Diameter Meter Tubes, and superintendent, gas measurement dept., Lone Star Gas Co., Dallas.

Referring to the A.G.A.-ASME large diameter meter tube research program, he said there has been organized a "practical testing program aimed at resolving existing uncertainties attendant upon measurement of gross volumes in large diameter tubes." Based on this information, he went on, the natural gas industry will benefit from increased knowledge and control of transmission operations. Financial savings will develop from this testing program, underwritten by \$32,000 of PAR funds in 1951 and 1952, he said. However, Mr. Stovall concluded, even though several thousand dollars more may be requested, the financial benefits of good metering and general efficiency resulting in decreased operating costs will far exceed the cost of the testing program.

A forum on pipeline safety during the afternoon transmission session comprised two progress reports to the industry followed by discussion. The A.S.A. B-31 Code for the "design, manufacture, fabrication, test installation and operation of pressure piping systems," was discussed by Frank S. G. Williams, chairman, joint API-A.G.A. Committee on Oil and Gas Pipeline Field Welding Practices, and manager of engineering standards, Taylor Forge and Pipe Works, New York, N. Y.

"New Specifications for Field Welding and Radiographic Testing of Pipelines" were reviewed briefly by Robert G. Strong, chairman, Joint API-A.G.A. Committee on Oil and Gas Pipeline Field Welding Practices, and director of engineering, Natural Gas Pipeline Co. of America, Chicago, Ill.

In the discussion the speakers were joined by Frederic A. Hough, vice-president, Southern Counties Gas Co. of California, Los Angeles, and Walter H. Davidson, superintendent of operations, Transcontinental Gas Pipe Line Corp., Houston.

Fourth and final meeting was the session on underground storage, presided

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NTHLY

over by Fenton H. Finn, chairman of the Committee on Underground Storage, and vice-president, New York State Natural Gas Corp., Pittsburgh.

Since storage operations were started in 1941 at the La Goleta underground gas field, its importance steadily has increased said Raymond W. Todd, vice-president and chief engineer of the Pacific Lighting Gas Supply Co., Los Angeles. At present the field delivers 350 M³ cubic feet of gas daily and has a working storage capacity of 14.4 billion cubic feet.

This dry gas field, situated near Santa Barbara, is about 105 miles northwest of Los Angeles, which it provides with natural gas for peak load needs. Originally it was discovered by General Petroleum Corp., in August, 1929. No oil was found after five years of exploration, although five gas wells have been completed and operators turned to selling natural gas. Since discovery of the field, Mr. Todd said, ten non-productive wells were drilled by other companies in the surrounding areas at various times.

As water was encroaching on the field and increased demands were draining gas, he continued, it was concluded that the field soon would be depleted and the encroachment of edgewater would spoil its use for storage.

At present the field is so developed that of 12 wells drilled, 11 are being used for injecting and withdrawing gas. Principal transmission facilities between La Goleta field and Los Angeles comprise 16, 20 and 22 inch pipelines which have a capacity of 338 M³ cubic feet daily. Plans call for additional wells and dehydration facilities to increase gas delivery to 460 M³ cubic feet daily by autumn. These installations are owned by the Southern California and Southern Counties Gas Companies.

Perhaps the Playa del Rey underground storage project is the first where gas is stored in a partially depleted oil reservoir, said John Riegler, Jr., petroleum engineer, Southern California Gas Co., Los Angeles, Calif. He stated that the main objective was recovery of large volumes of gas at high rates, and secondary consideration to oil recovery.

Playa del Rey fronts on Santa Monica Bay, favorably located near its load center about 15 miles from the middle of Los Angeles. Its total storage capacity of about 1,500,000 Mcf is small compared to similar projects. However, it operates at 10,000 Mcf an hour without compres-

sion and its rate may rise as more fluid is removed.

When Southern California was rapidly industrialized during World War II, said Mr. Riegler, unanticipated supply problems were forced upon its local gas companies. Therefore the Playa del Rey field was investigated to determine its underground storage possibilities. Since the field's geological structure and its location were found suitable, and time was of the essence, the federal government condemned about 240 acres and a pilot plant operation was successfully inaugurated and later expanded.

This project can be used for quick pressure reinforcement for short periods in metropolitan Los Angeles which otherwise could be obtained only by above-ground storage, said Mr. Riegler. He estimates that the over-all efficiency of the storage structure has been more than 85 percent, considering volumes remaining in storage as of January 1, 1952.

All economic studies and preliminary development work indicate that large volume storage in the Herscher Dome is economical and practical, said M. V. Burlingame, vice-president in charge of operations, Natural Gas Storage Co. of Illinois, Chicago. He said such capacity would be feasible to serve the growing needs of the Chicago area for cooking and househeating.

Estimates showed the safe and capable qualities of the anticline for underground storage near the village of Herscher, close to Kankakee in northeast Illinois. The structure here contains a reservoir bed of about 100 feet of porous sandstone. Its porosity and permeability, Mr. Burlingame said, would make injection and deliverability rates entirely adequate.

Present estimates state that as much as 90,000 MMcf can be required for cushion if 90,000 MMcf is to be made available for withdrawal during any one heating season. Further estimates indicate as much as 1,500 MMcf will be delivered daily on peak days after the project has been developed to maximum capacity.

Capacity expansion is proposed to keep pace with corresponding increases in the number of customers. During the first year 25 wells have been proposed to inject and deliver gas, and to lay gathering lines to connect with centrally located compressor station and dehydration plant.

According to data gathered from 15 states, by the end of 1951 there were 142 underground gas storage pools in the

United States, with 4,384 active wells and 96 compressor stations with a total of 211,480 horsepower. These were among "Statistics for Storage Operations of Storage Fields," quoted in a talk by John V. Goodman, chairman, Statistics Subcommittee, Committee on Underground Storage, and superintendent, production and geologist, Equitable Gas Co., Pittsburgh. He also stated that the maximum gas in storage during 1951 was 545,076,000 Mcf.

A theory of pit corrosion in oil well equipment caused by differential fluid flow was expressed by Dr. Gilson H. Rohrback, California Research Corp., La Habra, Calif., in a talk entitled, "Theory of Oil Well Corrosion."

Among others who served to make these sessions outstanding was James S. Moulton, Program Committee chairman, who is vice-president and executive engineer, Pacific Gas and Electric Co., San Francisco. Program Committee members included F. M. Banks, president and general manager, Southern California Gas Co., Los Angeles; Everett J. Boothby, president, Washington (D. C.) Gas Light Co., Washington; Edward M. Berger, president, The Peoples Natural Gas Co., Pittsburgh; and C. H. Zachry, president, Southern Union Gas Co., Dallas. Members of the Los Angeles Arrangements Committee were R. R. Blackburn, chairman, Southern California Gas Co.; John E. Kern, Pacific Coast Gas Assn., and Frank B. Wright, Southern Counties Gas Co. of California, all of Los Angeles.

Total attendance was more than eight hundred persons, including wives of delegates. As chairman of the Ladies Committee, Mrs. Frank C. Smith of Houston was joined by Mrs. F. M. Banks and Mrs. Arthur F. Bridge, both of Los Angeles, who welcomed wives of representatives. After a luncheon and style show at the Wilshire Country Club, the women shopped, went sightseeing and visited museums and theatres. Other co-operating committee members included Mrs. Ludlow Shonnard, Jr. of Los Angeles; Mrs. Robert A. Hornby and Mrs. James S. Moulton, both of San Francisco; Mrs. Charles E. Bennett of Pittsburgh, Pa., and Mrs. George H. Smith and Mrs. H. Carl Wolf, both of New York City.

Copies of papers which have not been pre-printed for distribution at the spring meeting may be obtained by writing to: Natural Gas Dept., A.G.A.

Barger

(Continued from page 16)

same company is bringing about a reduction in house heating pilot input in new equipment that will make the summer pilot program even more practical for all gas utilities.

It is the obligation of customer service or utilization departments to devote constant effort toward securing proper installations and suitable appliances for customers. Even in territories where utilities merchandise, most appliances are usually bought from other sources, so the problem is one involving the strengthening of codes and regulations, and educating customers and the trade. It is in the best interest of all concerned with the gas industry that we fully endorse and promote the universal adoption of appliances that carry the blue star indicating approval by the American Gas Association. Many local codes already incorporate such a requirement. In communities not having such a code, experience has shown that authorities are generally receptive to and respect the efforts of the local utility to institute such a sound minimum requirement. This is a particularly important regulation if we are to experience the rapid growth in heating appliances currently associated with the advent of natural gas.

If for any reason adequate codes cannot be secured to assure safe equipment and installations, it then becomes incumbent upon the utility to develop its own means of enforcing safe practices. Several techniques have been used to accomplish this end. One company has a special rate for house heating that is available only to approved installations, and they describe this in printed booklets that show just what requirements the appliances and their installations have to meet. Other companies notify the local trade and customers that full free adjustment service will not be made available if the equipment and installation do not meet minimum standards. Still another refuses to supply gas to unapproved equipment or installations.

Installation standards are also of vital importance. In this regard we again have standards developed through the efforts of the American Gas Association and approved by the American Standards Association. It is sometimes difficult to get these standards into local codes in their entirety. However, we have never missed upgrading a code once we started to try to do so. The important point again is that the utilities should take the initiative and make the effort on this along with their other daily jobs.

When utilities merchandise, it is a much simpler job to control the quality of equipment thus sold. It is surprising, however, that some utilities sell equipment that has not been put through their service or utilization department for inspection, test and approval. It is an elemental necessity to proper service, customer satisfaction and control of service and warranty expenses, that appliances sold by a utility be appraised carefully from the service angle, as well as from the sales viewpoint. As one service manager remarked, "when service obtains the same voice in appliance design and construction that sales has, I believe the ultimate in efficient low-cost, one-call service will result, and at that time most of the service problems we now consider will evaporate into thin air." This may be leaning too far over in one direction for good balance, but there can be no doubt that service department appraisal can materially aid in the selection of suitable equipment.

As we look to the future for the best method of meeting service requirements of our customers, we are all apt to be deeply concerned about the inevitable trend toward more service complexity inherent in automatic appliances. We are apprehensive about our ability to cope successfully with service requirements of increasing numbers of these automatic appliances, and still keep our equilibrium as to total costs. Some have stated that they believe it is unavoidable that we shall have to turn adjustment service over to others to do because the cost burden will be too great. This is probably not so,

for there are many factors also working in our behalf. Due to the emphasis on standardization and improvement of the serviceability of automatic appliances, the increasing trend of calls per automatic appliance has been halted, and will undoubtedly reverse itself. The total service load and cost will increase, but the servicing cost per thousand cubic feet used by the higher gas-consuming automatic appliances should not increase, except as all costs follow inflationary trends.

Also, as the saturation of a class of automatic appliances increases, the calls per appliance-customer-year decrease. To be sure, there is an asymptotic limit to this relationship, but it is nevertheless there and must be recognized if we are not to be misled in our planning. A good example of this is house heating. In spite of the rapid rise of basic costs of labor and material, most of us have seen the unit servicing costs for house heating actually decline over the past decade. This has been largely due to lessening of customer demands for de luxe service but also is due to improved appliances, better fuel delivery and servicing techniques. Clothes dryers, which have sprung up practically over night as a major appliance, are another case in point. They will follow the same development headaches of appliance refinement, education of customers and utility employees alike, and service costs per appliance will level out as saturation increases.

Whether you have one percent or one hundred percent saturation of automatic appliances, your customer's appliances will still require the same basic adjustment service. Shifting the burden of service to outside agencies will result in your customer getting poorer service, slower service and more costly service. Gas must be utilized at least safely by all classes of appliances and it is up to us to see that customers call for and get at least the basic adjustment service necessary to assure this end. The people that swing to gas do so because they expect to get better service than with other fuels—let us see to it that they continue to get it.

"CP" range highlights

(Continued from page 37)

meals, calling for less attention, are prepared on the busy days.

More housewives should be instructed that the "CP" automatic clock control can be used advantageously while the

homemaker is at home as well as when she is out, suggested discussion leader Eleanor Wiese, home service supervisor, Public Service Electric and Gas Co., Newark, N. J. "The housewife doesn't have to cook an entire oven meal to use the clock. She could, for example, clock-control a roast and cook the accompany-

ing vegetables on top of the range in a few minutes just before the meal is to be served," she said. "One of the main reasons why so many women like pressure cooking with gas is that the magic blue flame assures speed and flexibility that allows pressure to be reached quickly and maintained easily."

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Mrs. Wiese's talk concluded the morning session at which Flora Dowler, chairman, A.G.A. Home Service Committee, presided. Delegates then took a "Cook's Tour of Automatic Gas Ranges," on display, which represented the latest in developments and improvements of "CP" models.

Range features included low temperature ovens designed to maintain a heat of 250° or less; "matchless" automatic oven and broiler heat control; simmer burners to provide many degrees of heat instantly; at least one giant burner for faster top-burner cooking; smokeless broilers designed to drain grease away from heat zone and to incinerate smoke arising from the broiler grid; non-tilt oven racks and glide drawers; wheel-about, table-top storage cart; no turn

broiler that broils both sides of meat at once, and press-toe broiler drawer.

Showing slides from his book, "Guide to Easier Living," designer Russel Wright opened the afternoon session. His address, "Kitchens Today and Tomorrow," concerned housewives who want a kitchen "with more than scullery functions." He spoke of modern kitchen appliances combined with furnishings found in other parts of the home, providing living-kitchens with a touch of glamour added.

"The automatic gas range is the cooking girl's best friend," said discussion leader Harry Swenson, display and home planning director, The Peoples Gas Light and Coke Co., Chicago. Holding a colorful organdy apron he concluded, "the kitchen itself is nowadays as pretty as a

kitchen apron and as practical."

Questions submitted by conference delegates and trends and developments in automatic gas ranges were discussed by a panel of gas range manufacturers, introduced by James I. Gorton, GAMA "CP" director. He addressed the conference on "CP is the 'Buy' Word in Automatic Gas Ranges."

The gas industry can claim "doubling in size in the last decade," said Hugh H. Cuthrell, concluding speaker, and president, Brooklyn Union Gas Co., Brooklyn, N. Y. In his talk, "Horizons Unlimited," he noted that "whole new industries have grown up in the wake of natural gas . . . not only is the gas industry the nation's sixth largest, but it is the fastest growing industry in the country today."

Tire mileage

(Continued from page 31)

drivers turning in good tire performance will get the drivers interested in increasing tire mileage by exercising the same care they would with their own tires.

To help reduce your tire costs, have a man acquainted with tires analyze your conditions, especially tires that have been scrapped. A tire man can tell a lot from an examination of a scrap pile as to why tires are failing, and can make suggestions as to the type of tire best fitted for your service and what might be done to prevent some of your premature failures.

Operating conditions will vary in different localities. Generally speaking, you would be well advised to use a 6-ply tire rather than a 4-ply, because if your service tends to abuse tires the additional 2 plies should better resist such abuse.

If your service is in areas subject to snow and ice during winter, you should choose a tread design that is best adapted for these conditions. Don't expect to get a universal tread that will be "best" under all conditions. A tread can be designed for almost any given condition but no single tread can be expected to be equally good under all kinds of service. When a tread is designed for maximum tread wear, it probably will not be outstanding for traction in mud and snow.

If you don't want your drivers to handle inflation, then someone else

must do it if it is to be done. Assigning tire service to mechanics usually means that it is not handled because they will always be busy doing something else.

If your operation has sufficient concentration of vehicles to warrant the expense of a man devoting his entire time to tire work, it is worthwhile assigning a man to such work. If this man has not had previous experience on tires, he should be acquainted with tire maintenance principles. He should be able to handle:

1. Inflation;
2. Toe-in checks;
3. Inspection of tires for cuts and making repairs before the injury becomes too far advanced;
4. Make tube repairs and small spot repairs;
5. Rotation and matching of tires;
6. General inspection of tires for any condition which might be adversely affecting tires.

How about records? Should you keep tire mileage records? There are no miles in a record. There is no use in keeping tire mileage records merely to keep records, unless there is going to be some use made of them. Records should be as simple and fool-proof as possible. Most operations have a vehicle maintenance card on which is listed all work done on the vehicle. Do you list the application of tires on this card? While not necessarily the best manner of keeping tire records, this

card would at least give data on the application and removal of tires.

Where the concentration of vehicles is sufficient to warrant a tire man, a regular tire record system should be used. Our records consist of tire change tags, tire card, and vehicle card. We will be glad to send any of your companies a sample of these forms with complete instructions for their use.

One strict rule should be made—never to give out a useable tire without securing the flat, injured or worn-out tire in return.

Branding of tires with inch-high numbers and your identifying initials not only simplifies record keeping, but aids in preventing theft of your tires.

Whether to have a tire repaired or recapped should be left to the judgment of the tire service man. No tire should be repaired or recapped unless the probability is good that you will more than recover the cost of the repair or recap. Service to which it will be subjected, the amount of tread worn off, and the general condition of the tire should determine what should be done to it. Here also, be sure to get quality work.

TAX

• The word "tax" comes from the Latin word "taxare," which means "to touch sharply." We'll leave the wise-crack up to you. . . .

—Pete Simer, Weekly Progress

Material conference

(Continued from page 25)

grams that had been previously initiated. He advised that it is now possible to plan on the initiation of new programs. He stated that it has been possible to maintain the construction program at about a four million ton level for steel (nine hundred thousand tons of structural steel being included within this total) and at about a one hundred and fifty million pound copper wire level. Mr. Rose said that as programs now under way are completed, during the latter part of this year it may be possible to release some of the rigid restrictions on all products, with the probable exception of copper.

Mr. Shulman explained the relationship of the Home and Housing Finance Agency to the housing agencies of the government, pointing out that HHFA is a sort of holding company for practically all of the government housing agencies. He discussed the housing goal for 1952, which is approximately eight hundred thousand starts. He discussed responsi-

bilities as claimant agency for materials for the residential construction industry and explained the distribution of materials among the industry. Mr. Shulman pointed out the interest of HHFA in seeing that houses for which materials are allocated are habitable houses from the point of view of necessary utility connections.

Mr. Herr gave a brief description of the organization of PAD, its functions and the manner PAD-26 and PAD-26LP applications are processed. He also outlined the methods of obtaining controlled materials for allotment, the procedure for division of allotments within PAD and the percentages permitted for subsequent quarters. He advised of the status of PAD Forms 61 and 62 and outlined, in a broad sense, the categories in which all projects are placed in determining their essentiality.

The question of obtaining copper tubing for use in service lines was discussed and the group was advised that PAD had requested an allotment for this use—at least for MRO purposes.

Mr. Smith gave a precise and detailed

explanation of the duties of American Gas Association's Washington office, in these times of critical shortages of essential materials. He reminded those present that the office in Washington is maintained to serve the industry and its members in many ways and urged that these services be used to the fullest.

Because of the recent publicity regarding possible de-control of some materials by the government, this material situation forum created much interest.

At the conclusion of the talks by the members of the panel, a prolonged "question and answer" period followed. Questions also were asked by the panel members of the audience, showing their deep interest in the obtainability and use of materials by the gas industry.

At the banquet Tuesday evening, a delightful musical program was furnished by employees of the Memphis Light, Gas & Water Division, under the direction of Miss Blanche Bryant.

Tours were arranged on Wednesday for those who wished to see the various properties of Memphis Light, Gas & Water Division.

Dryer sales

(Continued from page 21)

to offset the loss of pilot load, as ranges, equipped with single point or electric ignition begin to move in volume!

And, as Vin Potter of A. G. A. and many of you have pointed out, this latest member of the gas appliance family glamorizes gas and increases its acceptance as a modern fuel.

There are no G.E.'s, no Westinghouse's, no Frigidaire's in the gas industry. But the gas dryer is adding new prestige names to the gas side of the fuel fence. These names are heavily advertised and promoted nationally.

Isn't this worth something to the gas industry?

The electric industry enjoys a steady stream of new load appliances—if it isn't TV or the electric-blanket, it's a baby's bottle warmer or an inexpensive sunlamp.

Gas utilities do not want a lop-sided condition to develop in which they find their basement or heating load growing by leaps and bounds while their kitchen and laundry load dwindles or remains static. The automatic gas clothes dryer is your best means of combating this trend. It is the first

new-load gas appliance with a high saturation potential that has been made available to gas utilities since 1929 when Servel brought out their gas refrigerator.

Right now hundreds of gas and combination utilities are aggressively pushing dryers, some with greater success than others.

It has become quite clear to us what is required to capture the major portion of this business.

The following conditions almost always prevail in those utilities which are doing a successful job:

(1) Strong management interest and close follow through;

(2) Willingness to devote the extra time, money, sales and promotional effort necessary to launch successfully any new fuel use or service;

(3) A willingness to go through a development period in their organization when results take longer to show than with older established lines which already have high acceptance.

Wherever these management attitudes prevail and the utility has a well trained outside sales force of adequate size, coupled with a strong dealer contact group and good dealer policies,

gas dryer sales results range from good to phenomenal: good for those utilities just getting under way, phenomenal for those in their second or third year of active dryer promotions.

In the case of non-merchandising utilities, unusually heavy promotions and very close dealer cooperation and contact work backed by liberal advertising and installation allowances have produced unusually good results. But in most cases the only sure way to get the lion's share of this business is both to build up your own outside sales force and to cooperate actively with your dealers.

An alert sales force of your own constantly keeps before the dealer a proved example that it pays to talk up gas dryers, and that if he waits for customers to come to him instead of going out after them, he'll lose a lot of business. Cooperation with dealers can take the form of offers of good advertising and installation allowances, good display service and periodic pep talks and supplying of gas dryer "sales ammunition." Help him with prospekt mailings. Dealers left to their own devices go electric.

In the gas industry there are no G.E.'s or Westinghouses to carry the

ball. Gas utilities have to provide the leadership and do the pioneering and load building job in their areas, especially during the early period of rapid growth of a new service when the pattern of fuel choice is being set.

Gas appliance manufacturers are constantly stepping up their promotional and advertising efforts in order to make more and more homemakers automatic dryer conscious and create more prospects daily.

The most important thing we are doing is to get away from the seasonal appeal that has been the basic dryer advertising theme of the industry. It's all very well to talk about "forget about rain, or sleet, or snow—forget about bad weather." The appeal of convenience is a powerful one, but it creates high seasonal peaks and valleys—with dryer sales peaking in the fall and winter, sliding off in the spring and dropping dead in the summer.

The truth of the matter is that an automatic clothes dryer is most useful in summer. First, because the average family wash increases 50 percent to 100 percent in summer, with wash dresses, wash slacks, more baths, more towels, children playing outside and more frequent clothes changes. The larger the wash the greater need for a dryer.

Line dried clothes are affected by industrial smoke and fumes, auto exhaust, wind whipping, wind blown dust, summer rains, summer fog, high humidity and—worst of all—sun fading!

The rays of the sun penetrate clouds, reflect from ground and walls, go thru smoke and fog to burn, to bleach and to fade bright colors and delicate fabrics. Sun-fading shortens the life of any garment. Dryer dried clothes last longer.

Comparisons of line-drying and dryer-drying were conducted with several identical pairs of colored handkerchiefs. Each handkerchief was used and washed 20 times. One handkerchief of each pair was line-dried, one was consistently dryer-dried. In each instance the dryer-dried handkerchief retained its colors fresh and bright, while the line-dried handkerchief had lost all its beauty through fading.

In another instance, identical blue dresses were worn the same number of times by twin girls. One was dried 20 times on the line, the other 20 times in a gas dryer. The former faded so much

that its value was practically lost, while the latter remained fresh and bright. When new, each dress had cost \$7.95. It wouldn't take very many dresses saved from ruinous fading to pay for a dryer.

Rugs, towels and diapers were shown by comparative tests to be softer and fluffier when dryer-dried than when line-dried. The superior fluffing of dryer-drying made the towels and diapers more absorbent.

Now isn't that a powerful story?

Now you may say, "How can we bring this story to millions of homemakers?" Well, every Bendix distributor—and the thousands of Bendix dealers have seen this story in even greater detail and they are now telling it to the women in their communities.

We, at Bendix, are beaming our entire dryer advertising approach at the theme, "Dryer Dried Clothes Look Better—Feel Better—Last Longer." This is only the beginning. We intend to exploit this theme strongly in the months to come. In addition, our dealers will use ads Bendix has prepared for their newspaper campaigns.

The use of a constructive creative selling theme like this can do much to make the dryer an appliance with year around sales potential.

Constructive sales activities are necessary if the gas industry is to get its share of automatic dryer business. Utility sales promotion plans might well include:

1. A year-around key dryer promotion program, planned month by month.

2. Payment to salesmen of stepped-up bonuses, the year around, if they make their dryer quotas each month, in addition to their quota on the other appliances being pushed.

3. Connection of dryers on selling floors. It has been proved that stores with gas dryers hooked up on the floor sell five times more dryers than those without. Salesmen with gas dryers in their homes sell six times more than those who don't have them. Statistically: 15 dealers with dryers hooked up and dryers in homes sold 345 dryers; 66 dealers without sold 284.

4. Cooperation on advertising costs of dealers who promote your fuel.

5. Introduction of influence-making personalities to the advantages of gas dryers. It's worth while to get gas dryers into the homes of your com-

munity leaders with influence-making possibilities. Home economic teachers, farm and home leaders, newspapers and radio and TV personalities should be offered special deals or special prices. Get the benefit of their word of mouth advertising.

6. Special financing and special prices for gas dryer purchases by utility and dealer employees.

We need everyone on the team familiar with and enthusiastic about the advantages of an automatic gas clothes dryer. This isn't anything new: it has proved its worth in the introductory period on other appliances.

Give homemakers interesting and constructive meetings to teach how to wash and dry clothes, in view of changes in fabric characteristics. Using the same principle that has proved so successful in cooking schools you have a wonderful opportunity to sell the need for automatic hot water and plenty of it, plus the advantages of gas dryer. Certainly, you must integrate the automatic washer demonstrations to make it a complete package, but it pays off because the average home-maker considers washing and drying as all part of the same home laundry problem.

But, there is one thing that we should honestly and carefully consider, and that is price. What are you doing to overcome the apparent price advantage of the Electric Dryer?

The facts are plain: To the consumer at first glance the first cost of the gas dryer is higher. But to overcome that apparent sales disadvantage gas dryer salesmen can point out that average operating cost of the gas dryer is lower. In addition he can show that the average installation cost of the gas dryer is far lower than that of electric.

Average installation cost on gas dryers is so low that it is possible to absorb it. Get together with your distributors and dealers and work out a program that will do this job. Think of the power of a national program for gas dryers that said:

Buy a gas dryer NOW: Gas dries FASTER, Costs LESS to use, Costs less INSTALLED.

That's a powerful competitive appeal and it will give you a real competitive advantage.

The big thing is to approach your selling opportunity aggressively, plan a program and pursue it on a year around basis.

Refrigeration drive

(Continued from page 36)

gas, providing a ten-year warranty which is "twice as long as any other refrigerator."

"Kleen-Stik" stripes and scorelines are being used in this full fledged A.G.A.

portfolio possibly for the first time with such widespread distribution. Displays are set up quicker, last longer and stay cleaner. The adhesive has been tested and will not harm porcelain in any way. "Kleen-Stik" also is easily removable.

All 48 display pieces come in a ready-display kit costing \$7.15 f.o.b. New

York City. Reprints of *The Saturday Evening Post* and *Life* A.G.A. color advertisements, enlarged to about 18 inches by 27 inches mounted and easled, and soft sheet reproductions for window or wall use will be sent to every purchaser of the display kit.

Bennett

(Continued from page 8)

it from the automobile dealer. Hotels brag of their "distinguished" or "unsurpassed" service. The gas industry, through the years, has built good will by the service it has rendered to the American public. After all, while we are concerned with the sales of a fuel it is "gas service" which we actually supply.

One good example of current thinking on matters of service is the recent Operating Section appointment of a Committee on Customer Service Responsibilities. The goal of this committee is the formulation of a code of service responsibility. Among the subjects of prime interest to this group is a study of service required for safety and for continued customer acceptance of gas; a study of customer service responsibilities with respect to gas companies, manufacturers and dealers, an analysis of service costs, and a correlation of service policies with the industry's safety experience.

There is a definite necessity of a unified action and the creation of an integrated front in order properly to shoulder our enlarged responsibilities. As regards safety another public utility is well ahead of us. Today, as a result of hard work and unified action, the railroads have convinced the American public that there's maximum safety in railroad travel. The gas industry has not done as good a job in convincing the public on the safety aspects of gas service. Our industry faces this public opinion today. It is a problem that cannot and must not be ignored. We must restore the confidence of the public in the safety of our product, our pipelines, our compressor stations, our appliances and our related equipment.

A series of happenings during the past year or two has created an impression in the minds of the public that our operations and our product are hazardous. In line with that type of thinking, which has become all too common these days, suggestions are being made that "the government" must do something about regulat-

ing the gas industry in the interest of safety. The Heselton Bill would have the Federal Power Commission control the safety of natural gas pipelines. Legislation has been passed in Connecticut directing the utility commission to formulate natural gas pipeline safety standards. There's a movement by the Wisconsin Commission to write safety regulations, and the Health Department in New York City has been issuing statements, putting out warnings and threatening more restrictions.

Naturally, the officers and directors of the American Gas Association have become thoroughly concerned about the general subject of safety. An Executive Safety Committee, authorized by the Executive Board, has been appointed. It consists of eight board members. This committee is charged with the responsibility of studying and recommending procedure covering safety problems in all phases of the gas industry operations.

The creation of this policy-making and reviewing group for the A.G.A. safety plan of action does not excuse any one of us from positive, aggressive safety work in our own communities. There is a dire necessity for every man in the gas industry to meet this problem head on. We licked it before in the early 1920's, and with adequate cooperation, we will lick it again.

What was our strong weapon in the early 1920's? We created the A.G.A. Laboratories and developed approval requirements which were adopted by the American Standards Association as American Standards. Today, 95 percent of the gas appliances sold and installed bear the Laboratories' Seal of Approval. The work of our Laboratories and Approval Requirements Committee has become more significant with each passing year. It is recognized today as a remarkable achievement in self-policing of an industry in the interests of safety and good service.

In these days when "free enterprise" is much in the news, it is good to realize we are a free enterprise industry. As *The*

New York Times reported on March 10, "The metamorphosis that has occurred in the natural gas industry is the story of private enterprise and individual effort. It is one of the paradoxes of our time."

Despite raising our own capital, running our own risks, and paying our taxes, we are a regulated industry. Should I say, a closely regulated industry? In addition, we are a competitive industry. Can you think of a fuel service we render that cannot be rendered by some other fuel? Do you suppose we would have experienced this phenomenal growth if there had been no link to the costs of competitive fuels? Since 1941, in the Pittsburgh area, bituminous coal has jumped from \$5.10 a ton to \$10.60. This is a 107.8 percent rise. Egg coke, in the same period, has risen from \$8.25 a ton to \$18.50 a ton, a 124 percent jump. Fuel oil has gone up from 7.5 cents a gallon to 13.5 cents per gallon, a seventy five percent increase. But, across the country, gas rates have not risen as fast as the prices of competitive fuels.

It is an uneconomic situation when a homeowner pays more to heat his abode with a crude fuel than he would have to pay with gas, a high-grade, premium fuel. Such is too often the case. There is no shortage of any of the fuels that are competitive with gas in domestic service. But despite the fact that when we buy meters, pipe, compressors and trucks we pay from fifty to two hundred percent more than we did a few years ago, we have no easy road when we seek approval to raise our rates only 10, 12, 15, or 18 percent.

Here we are, an industry replete with growing pains; an industry doing its utmost to bring better living to more and more people. We deserve to be looked on, and at, more realistically than is the case today. Possibly we have welcomed the adulation of the press without having given them an opportunity to tell the rest of the story. Unless this is done, and unless more people understand the impossibility of doubling labor costs and doubling material costs—yet conducting a

free enterprise with only a modest raise in our product selling price—then the nation will never receive the ultimate advantage of natural gas. It will never gain full use of one of the country's greatest resources that only now is marching on to maximum contribution to a still better way of life.

We witness today the introduction of natural gas into former strongholds of the manufactured gas territory. The Pacific Northwest is about the only region in the United States where natural gas is not available. But, as we all know, provision for its introduction from Canadian gas fields is imminent.

In its December, 1886 issue, *The American Gas Journal* published the remarks of W. H. Denniston. That pioneer gas man warned the manufactured gas industry that it would have to reckon with natural gas in the future, whether it

liked it or not.

This prediction was made sixty-six years ago. Today it has come true. The more general use of natural gas throughout the country has created a change in thinking within the American Gas Association. There is less reason today for any distinction within the A. G. A. between the manufactured gas and natural gas departments. Many of their former individual problems now have become common problems. Their future efforts and activities point in the same direction.

Natural gas is the fastest growing branch of the nation's gas industry. Natural gas has centered the attention of the public on our industry. Our present size, total investment, sales volume and public acceptance make an impressive showing in the economic life of the United States. Our growth has given us new and greater responsibilities. We

must perform as we have led the public to expect.

Manufactured and natural gas men now have common problems and common goals. They must work together for improved service to all customers—for even greater unification and integration—and for broader public confidence in the safety of our fuel and its utilization equipment.

A. G. A. and GAMA are doing important jobs, and doing them well. The industry faces an extended period of rate adjustment and even greater competition for the base load.

When in one year the American public consumed over six trillion cubic feet of natural gas, plus a large amount of manufactured gas, we have the duty and the responsibility to think, act and progress as important leaders in American life.

Restaurant show

(Continued from page 28)

the rule for all in the gas section. A quick poll of the manufacturers, taken by an A. G. A. representative, brought the universal report that the interest in equipment and intent to purchase was exceptional for a trade show. Accustomed to people "just looking" in most trade shows, the manufacturers were pleasantly surprised to find restaurant owners in the mood to buy and in the position to pay.

One manufacturer who had his business film showing in another section of the exposition reported that a restaurant operator, after viewing his film, came directly to his booth and ordered a steamer. Two gas section exhibitors had their sales promotion films showing twice daily in a meeting room at the exposition. Another manufacturer said: "We wrote more orders here at this show than we ever have written at any trade show." A range manufacturer said: "I've never seen so much interest shown in our line of ranges in any show before."

There were 20,649 of the nation's leading restaurant operators registered at the exposition. About three thousand dealers and wholesalers of equipment were in attendance the first day which was called "Dealer Day." Part of the curriculum of the eighty-eight students attending the A. G. A. Commercial Gas School, held in Chicago the same week, was an afternoon tour of the Restaurant Exposition. This proved to be an inter-

esting and broadening experience for the students, most of whom were just starting in commercial work.

The theme of the association meetings was "Get More PROFIT-wise" with much stress upon "The \$5.00 Ideas." Emphasis was given to the fact that \$5.00 saved in the kitchen is equal to the net profit on \$100.00 in additional sales. This is a particularly good line of thought for our commercial departments to use in their sales approach to restaurant customers. They can tie-in with the theme of the National Restaurant Association by stressing that \$5.00 saved in fuel costs in the kitchen is the equivalent of doing \$100.00 extra volume business.

The gas industry was ably championed at a Restaurant Convention session by former A. G. A. President D. A. Hulcy, president of the Lone Star Gas Company. Mr. Hulcy denounced the tight grip the federal government exercises over private industry and lashed out at government waste and burdensome taxes.

Another highlight of the convention was a ceremony in which gas played a featured role. In a general session, R. A. Malony, executive vice-president, Bridgeport Gas Co., and chairman of the Managing Committee, A. G. A. Industrial and Commercial Gas Section, presented commendation awards to Col. Paul P. Logan, director of food and equipment research, National Restaurant Association, and George L. Anderson, Office of the Quartermaster General. The awards were made for the efforts of these two men to bring about improvements in

commercial equipment through establishing performance requirements.

Give awards



R. A. Malony presents special commendation award to G. L. Anderson, Office of Quartermaster General



Colonel Paul P. Logan, National Restaurant Association receives award from I&C Chairman R. A. Malony

New A.G.A. members

Gas companies

The Valley Gas Co., Ltd., Turner Valley,
Alta., Canada
(Mary E. Dougherty, Secy.-Treas.)

Manufacturer companies

Astral Industries, Inc., Rockleigh, N. J.
(Neil Schuman, Sales Mgr.)
The Industrial Press, New York, N. Y.
(Clifford Strock, Editor)
Miller Metal Products, Inc., Baltimore, Md.
(M. M. Miller, Pres.)
Quiet-Heat Manufacturing Corp., Newark,
N. J.
(Bruno Sachs, Production Mgr.)
Specialty Appliance Corp., Chicago, Ill.
(Richard T. Keating, Pres.)
Synchronous Flame, Inc., Chicago, Ill.
(F. A. O'Neill, Pres.)
Van Rich Products Corp., Cleveland, Ohio
(Wally Huber, Pres.)

Individual members

Frederick C. Aldrich, The Ohio Oil Co., Findlay, Ohio
Thomas S. Allen, Chicago District Pipeline Co., Joliet, Ill.
E. L. Anthony, The Gas Service Co., Independence, Mo.
Edwin W. Barbehenn, Jr., Public Service Electric & Gas Co., Plainfield, N. J.
William W. Baughman, Ohio Fuel Gas Co., Elyria, Ohio
Robert Boutigny, Societe Stein & Roubaix, Paris, France
Gilbert K. Broad, Pavilion Natural Gas Co., Geneseo, N. Y.
Arthur H. Conway, Pavilion Natural Gas Co., Pavilion, N. Y.
John J. Corrigan, Transcontinental Gas Pipe Line Corp., Houston, Tex.
Frank E. Costanzo, The Manufacturers Light & Heat Co., Pittsburgh, Pa.
Matthew T. Cusack, Consolidated Edison Co. of N. Y., Inc., Brooklyn, N. Y.
Alan G. Dome, Alan G. Dome Co., Upper Darby, Pennsylvania
Hugo Druehl, Arrowhead & Puritas Waters, Inc., Los Angeles, Calif.
Russell G. Eager, Pavilion Natural Gas Co., Geneseo, N. Y.
W. J. Edmund, E. L. Doheny, Beverly Hills, Calif.
Dwight T. Edwards, Central Electric & Gas Co., Norfolk, Neb.
Robert L. Fleming, The Weatherhead Co., Willoughby, Ohio
Walter T. Gleason, Central Electric & Gas Co., Plattsburgh, N.Y.
M. H. Golden, Plymouth Gas Light Co., Cambridge, Mass.
Kenneth G. Handley, The Hanover Bank, New York, N. Y.
Warren G. Harding, Public Service Electric & Gas Co., Newark, N. J.
Donald J. Hendrickson, Citizens Gas & Coke Utility, Indianapolis, Ind.

William W. Henry, The Philadelphia Gas Works Co., Philadelphia, Pa.
Carl Hokenson, The Peoples Gas Light & Coke Co., Chicago, Ill.
John C. Howell, Public Service Electric & Gas Co., Newark, N. J.
James F. Kinney, Penn Controls, Inc., Cleveland, Ohio
Lambert Klauke, Pacific Gas & Electric Co., Fresno, Calif.
George L. Kormann, Washington Gas Light Co., Washington, D. C.
W. J. Kretschmer, Columbia Gas System Service Corp., Columbus, Ohio
C. E. Lakin, Dayton Power & Light Co., Dayton, Ohio
Bill G. Lang, Institute of Gas Technology, Chicago, Ill.
H. L. Laughlin, Jr., Southern California Gas Co., Los Angeles, Calif.
Garland L. Lawson, Monarch Gas Co., St. Elmo, Ill.
Arthur L. Le Beau, Michigan-Wisconsin Pipe Line Co., Sandwich, Ill.
Howard Leckrone, The Ohio Fuel Gas Co., Zanesville, Ohio
Willard R. Lehn, The Brooklyn Union Gas Co., Brooklyn, N. Y.
Ralph W. Lesley, Pacific Gas & Electric Co., Fresno, Calif.
Robert K. Levey, Mueller Co., Decatur, Ill.
Robert H. Lewis, Washington Gas Light Co., Washington, D. C.
Lee M. Liberman, Laclede Gas Co., St. Louis
John R. Libolt, Southern Counties Gas Co., Los Angeles, Calif.
Joseph A. Logue, Cleveland Natural Gas Co., Cleveland, Tenn.
Beriah H. Loper, The Philadelphia Gas Works Co., Philadelphia, Pa.
Francis J. Lowe, Jr., The Brooklyn Union Gas Co., Brooklyn, N. Y.
Bernard P. Lunkwitz, Siegler Heater Corp., Centralia, Ill.
Raymond P. Lynch, Chicago District Pipeline Co., Chicago, Ill.
Percy S. Lyon, John Wood Co., New York, N. Y.
C. J. Lytle, Hope Natural Gas Co., Clarksburg, W. Va.
Robert H. Mahon, Transcontinental Gas Pipeline Corp., Houston, Tex.
Gordon J. Malone, Servel, Inc., New York, N. Y.
James E. Malone, The East Ohio Gas Co., Cleveland, Ohio
Conrad W. Marvin, Texas Eastern Transmission Corp., Shreveport, La.
Harold R. Masker, Pavilion Natural Gas Co., Geneseo, N. Y.
Carrington Mason, Houston Natural Gas Co., Houston, Tex.
Earl N. Mattson, American Cast Iron Pipe Co., Chicago, Ill.
Reginald A. Matzinger, Michigan Consolidated Gas Co., Detroit, Mich.
W. W. Mayfield, Hope Natural Gas Co., Clarksburg, W. Va.
Donald M. Mayne, Servel, Inc., Dallas, Tex.
Thomas N. McCarter, Jr., Public Service Electric & Gas Co., Newark, N. J.
Robert McClure, Barber-Greene Co., Aurora, Ill.
Frank H. McCracken, International Business Machines Corp., Chicago, Ill.
V. V. McDonnell, The Montana Power Co., Butte, Mont.
W. A. McDonough, Bendix Home Appliances, South Bend, Ind.
Stephen S. McElhaney, The East Ohio Gas Co., Cleveland, Ohio
John T. McKenna, Jr., Boston Consolidated Gas Co., Somerville, Mass.
G. W. McKinley, Hope Natural Gas Co., Clarksburg, W. Va.
William J. McLoone, Consolidated Edison Co. of New York Inc., New York, N. Y.
John B. McManus, General Gas Conversion Contractors, Bryn Mawr, Pa.
John J. McNamara, Consolidated Edison Co. of New York Inc., New York, N. Y.
Will W. Mellett, The Peoples Gas Light & Coke Co., Chicago, Ill.
Charles Menard, Gas Consumers Association, New York, N. Y.
Frank E. Messersmith, Jr., Southern Counties Gas Co., Los Angeles, Calif.
Robert V. Meyer, Stone & Webster Engineering Corp., Boston, Mass.
Leonard Milano, Commonwealth Services Inc., New York, N. Y.
James L. Miller, Advertising, Inc., Richmond, Va.
John Miller, Consolidated Natural Gas Co., New York, N. Y.
Francis Montelione, The Brooklyn Union Gas Co., Brooklyn, N. Y.
George A. Moore, Michigan-Wisconsin Pipe Line Co., Fairfield, Ia.
Harold Moreton, The Brooklyn Union Gas Co., Brooklyn, N. Y.
Russell J. Morris, Consumers Gas Co., Reading, Pa.
Wesley M. Morrison, Michigan-Wisconsin Pipe Line Co., Big Rapids, Mich.
William A. Murphy, Koppers Co., Inc., Metal Products Div., Oshkosh, Wis.
Herbert F. Murray, Conversions & Survey, Inc., New York, N. Y.
Edward B. Myers, Jr., Philadelphia Electric Co., Philadelphia, Pa.
Raymond C. Newsom, Southern Counties Gas Co., Los Angeles, Calif.
David L. Nicol, Institute of Gas Technology, Chicago, Ill.
Herbert E. Nord, The East Ohio Gas Co., Cleveland, Ohio
B. R. Nuzum, Hope Natural Gas Co., Clarksburg, W. Va.
Leonard Orlando, Jr., The Philadelphia Gas Works Co., Philadelphia, Pa.
John J. O'Toole, Utilities Mutual Insurance Co., New York, N. Y.
Ronald E. Palmer, Consolidated Natural Gas Co., New York, N. Y.
Kenneth A. Phillips, American Zinc, Lead & Smelting Co., East St. Louis, Ill.
Donald K. Pike, The Brooklyn Union Gas Co., Brooklyn, N. Y.
P. I. Plann, Southern California Gas Co., Los Angeles, Calif.
Robert E. Pollock, The Brooklyn Union Gas Co., Brooklyn, N. Y.
George W. Pratt, G. W. Pratt & Co., White Plains, N. Y.
Frank Predeaux, North American Utility & Construction Corp., Bennington, Vt.
Robert L. Purvin, Purvin and Gertz, Dallas
Clarence C. Rausch, Dearborn Chemical Co., Chicago, Ill.
L. B. Rayl, Southern California Gas Co., Los Angeles, Calif.



1952

JUNE

- Everett Ravn, Wisconsin Power & Light Co., Madison, Wis.
C. H. Rikel, Southern California Gas Co., Compton, Calif.
F. Douglas Ripley, Long Island Lighting Co., Mineola, N. Y.
John F. Roberts, Jr., Pacific Gas & Electric Co., San Francisco, Calif.
Vincent D. Robinson, Dearborn Chemical Co., New York, N. Y.
Harry Rolfs, Southern California Gas Co., Avenal, Calif.
Harold W. Rose, The Gas Service Co., Kansas City, Kans.
Styles E. Runser, The Montana Power Co., Butte, Mont.
William L. Rushworth, The Philadelphia Gas Works Co., Philadelphia, Pa.
Edward W. Ryan, The Peoples Gas Light & Coke Co., Chicago, Ill.
Eric H. Ryden, Timken Silent Automatic Div., Jackson, Mich.
John Sahagian, G. W. Pratt Co., Inc., White Plains, N. Y.
Karl W. Schick, Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
Joseph J. Schmieder, Gas Consumers Association, New York, N. Y.
J. S. Schnell, Hobart Manufacturing Co., Troy, Ohio
James W. Schoonmaker, Michigan Consolidated Gas Co., Detroit, Mich.
Paul G. Schwender, Columbia Gas System Service Corp., New York, N. Y.
George B. Scott, Equitable Gas Co., Monongahela, Pa.
Howard T. Scranton, Transcontinental Gas Pipe Line Co., Newark, N. J.
S. N. Seeley, Southern California Gas Co., Los Angeles, Calif.
James D. Sellers, Conversions & Surveys, Inc., New York, N. Y.
Lyle T. Seward, Indiana Gas & Water Co., Inc., Indianapolis, Ind.
Paul E. Sheppard, Milwaukee Gas Light Co., Milwaukee, Wis.
H. M. Sibley, International Business Machines Corp., St. Louis, Mo.
Robert D. Sickafuse, Institute of Gas Technology, Chicago, Ill.
Matio Silvestrone, Rochester Gas & Electric Corp., Rochester, N. Y.
Leslie A. Simpson, Consumers Power Co., Jackson, Mich.
J. Frank Skidmore, Equitable Gas Co., Pittsburgh, Pa.
Ernest B. Smith, Indiana Gas & Water Co., Inc., Indianapolis, Ind.
John F. Smith, Conversions and Surveys, Inc., New York, N. Y.
J. H. Spencer, Gas Consumers Service, Detroit, Mich.
Clifford M. Stanton, Jr., Southern Counties Gas Co., Los Angeles, Calif.
Charles E. Stout, Columbia Gas System Service Corp., New York, N. Y.
Fred W. Sultan, Jr., Ingersoll-Rand Co., Houston, Tex.
George A. Swanwedel, The Brooklyn Union Gas Co., Jamaica, N. Y.
John S. Sweeney, Southern Counties Gas Co., Whittier, Calif.
Ralph K. Tallant, Alabama-Tennessee Natural Gas Co., Forence, Ala.
Kenneth J. Tarr, The Brooklyn Union Gas Co., Brooklyn, N. Y.
- Vincent A. Tauber, International Business Machines Corp., Philadelphia, Pa.
Malcolm E. Taylor, Butane Gas & Appliance Co., St. Louis, Mo.
T. F. Taylor, Iowa-Illinoi. Gas & Electric Co., Davenport, Ia.
Frank A. Thomas, Jr., Gas Consumers Association, New York, N. Y.
Harold Tiley, Caloric Stove Corp., Philadelphia, Pa.
John E. Towle, Columbia Gas System Service Corp., New York, N. Y.
George F. Trexler, International Business Machines Corp., New York, N. Y.
H. N. Trott, Southern California Gas Co., Los Angeles, Calif.
Frank Tuttle, Michigan-Wisconsin Pipe Line Co., Liberal, Kan.
Edward J. Van Every, The Brooklyn Union Gas Co., Brooklyn, N. Y.
David G. Walker, Southern Counties Gas Co., Los Angeles, Calif.
Tom P. Walker, Irving Trust Co., New York
E. A. Wallace, Southern Counties Gas Co., Claremont, Calif.
Andrew F. Ward, Eureka Williams Corp., Bloomington, Ill.
Milton Weiss, Southern California Gas Co., Los Angeles, Calif.
George T. Weist, South Jersey Gas Co., Atlantic City, N. J.
Joseph H. Wells, United States Steel Co., Pittsburgh, Pa.
T. Hume West, Pacific Lighting Gas Supply Co., Los Angeles, Calif.
F. E. Westermeier, Southern California Gas Co., Los Angeles, Calif.
James G. White, Mississippi River Fuel Corp., St. Louis, Mo.
Robert N. White, Central Illinois Light Co., Peoria, Ill.
William W. White, Pavilion Natural Gas Co., Pittsford, Vt.
Thomas F. Whitty, The Brooklyn Union Gas Co., Brooklyn, N. Y.
Cyrus Wilensky, Southern California Gas Co., Norwalk, Calif.
Charlie R. Williams, Jr., The Gas Service Co., Kansas City, Mo.
James W. Williams, Michigan Consolidated Gas Co., Lansing, Mich.
Elizabeth R. Wilson, New York State Electric & Gas Co., Binghamton, N. Y.
Alva C. Wilt, General Gas Conversion Contractors, Bryn Mawr, Pa.
William W. Winchester, Transcontinental Gas Pipeline Corp., Malvern, Pa.
William H. Wise, Bryant Heater Division, Cleveland, Ohio
Edgar W. Wolff, Barber Gas Burner Co., Cleveland, Ohio
Francis H. Wright, The East Ohio Gas Co., Cleveland, Ohio
W. S. Wright, Hope Natural Gas Co., Clarksburg, W. Va.
Joseph I. Wrozina, Institute of Gas Technology, Chicago, Ill.
Leslie Yager, Jr., Nebraska City Utilities, Nebraska City, Nebr.
Delwin A. Yearly, Southern Counties Gas Co., Santa Barbara, Calif.
C. E. York, The Cincinnati Gas & Electric Co., Cincinnati, Ohio
David E. Young, The Ohio Fuel Gas Co., Columbus, Ohio

SEPTEMBER

- 3-5 •Pacific Coast Gas Association, Ambassador Hotel, Los Angeles, Calif.
8-10 •A.S.A. Third National Standardization Conference, Museum of Science and Industry, Chicago, Ill.
12 •New Jersey Gas Association, Monmouth Hotel, Spring Lake, N. J.
22-24 •American Trade Association Executives, Annual Meeting, Royal York Hotel, Toronto, Ontario.

OCTOBER

- 1-3 •Wisconsin Utilities Association, Technical and Sales Sections Convention, Schroeder Hotel, Milwaukee, Wis.
20-24 •National Metal Exposition, Philadelphia, Pa.
21-24 •The American Dietetic Association Exposition, Minneapolis, Minn.
27-30 •A. G. A. Annual Convention, Auditorium, Atlantic City, N. J.
27-31 •GAMA Exposition, Auditorium, Atlantic City, N. J.

NOVEMBER

- 10-13 •American Petroleum Institute, Annual Meeting, Chicago, Ill.
19 •American Standards Association, Waldorf Astoria, New York.
20-21 •Mid-Southeastern Gas Association, Annual Meeting, Sir Walter Hotel, Raleigh, N. C.

Personnel service

SERVICES OFFERED

Controller-Treasurer-Budget Director—Skilled administrator, presently employed as such by large utility. Keen analyst, gets things done minimum cost. Thorough knowledge modern accounting techniques, IBM, auditing, finance, costs, controls, budgets, systems and procedures, credits, insurance, taxes, pensions, government contacts. Timely and accurate figures interpreted for management action. Effective controls painlessly applied. University trained-business administration, accounting, finance, statistics, law. Member Controllers Institute. Can relocate, U. S. or abroad; knowledge languages. 1694.

Sales and Service—Man interested in position with larger company with a future in sales and service after 13 years with small stove company manufacturing gas, coal, oil and combination ranges. Traveled three years as junior salesman and service man in restricted territory. Appointed assistant engineer, no degree, but I.C.S. training and valuable practical experience with engineering and sales background. Good at office administration, including excellent organizing ability, much experience answering complaint letters, can read and understand blue prints, diplomatic trouble shooter and complaint adjustor, and do follow through on detail work. (31). 1699.

Gas Engineer—Extensive supervisory experience in all phases of gas production, plant construction and maintenance; natural gas, storage, distribution and bottle filling plants for LP gas; industrial utilization, customers service, reforming and catalytic cracking. 1700.

Gas Sales Manager—19 years' experience as salesman and administrator in installation domestic gas appliances, instruction and supervision of Sales Department in manufactured and natural gas; also experience in Dealer-Plumber relations. Presently employed as Sales Manager. Married. Desired opening where experience will be fully utilized. (45). 1702.

Assistant to General Manager—17 years' experience in sales, sales management, legal and corporate secretary's departments of large eastern gas utilities, member of New York Bar. Available within 30 days. Married. (43). 1703.

Sales or Operational—18 years' experience in the gas industry, in the fields of sales, sales supervision, utilization engineering and operational

management. College degree, have been commercial and industrial manager (26,000 meters) and responsible for industrial, house heating, commercial and government accounts including sales and service. A good practical knowledge of most every phase of the utility business. References available or interview can be arranged readily. 1704.

Utilization-Sales—15 years of gas distribution and utilization experience. Experience has included management and sales. Would consider traveling as sales and service representative. 1705.

Chemist—College graduate with a bachelor of science degree in chemistry. Good background in chemistry, including two years of physical chemistry, and various other sciences as well as mathematics. Male, single, willing to travel and draft exempt. (21). 1706.

POSITIONS OPEN

Sales Representatives—for an old established line of gas-fired furnaces, boilers, floor heaters, and conversion burners. Open territory in Wisconsin, Minnesota, Missouri, West Virginia, Kentucky, the Carolinas, Georgia, and Florida. 0649.

Engineer-Design—Experienced in gas plant design for extensive program of new construction and improvement to present plant facilities by large eastern gas manufacturing company. Salary commensurate with experience. 0650.

Assistant General Superintendent—Gas Operation for middle west gas utility serving city over 250,000. Age 35-40, with 10 years' or more utility experience, preferably in gas operation. Technical degree preferred. Must be able to assume top management duties, including administration, public relations, and supervision of all phases of gas operations. Attractive salary commensurate with abilities and responsibilities. Please give full information of positions held and references. 0651.

Industrial Gas Engineer—with 2 or 3 years' experience in the engineering and sale of industrial gas equipment. Man will be given complete charge of the sale of standard furnaces and ovens. Will also have a voice in the design and development of new equipment along these lines. 0652.

Sales Promotion—Combination utility, 75 miles from New York City, has opening for young

man interested in all phases of selling. Utility does not sell appliances directly but promotes domestic and commercial gas and electric equipment through local appliance dealers, department and specialty stores. Work entails forecasts, sales planning, personal contact. Experience in this particular field not essential but applicant should have a good general business background. An engineering background would also be helpful. Outstanding opportunity to learn. Mail qualifications and experience. 0653.

Gas Engineer—Growing natural gas company located in north central area has opening for gas engineer experienced in preparation of material for presentation to regulatory bodies and in gas distribution work, including appliance installation on customers' premises. Salary commensurate with ability and experience. Replies confidential. 0654.

Industrial Engineer—Experienced on time study, methods, processing and estimating in the gas heating or related fields. A new job created by reorganization and expansion of certain activities in the heater division of a long-established corporation. Location—Indianapolis. A resume, detailing qualifications and salary requirement, will receive prompt attention. 0655.

Project Engineer—New product research with advancement possibilities for engineer experienced in design and development of gas furnaces or other home appliances. The position is in Indianapolis, with the heater division of a well-known corporation. A resume with complete details will receive full consideration and a prompt reply. 0656.

Industrial Gas Engineer—Progressive midwestern utility, located in highly industrialized area, has opening for man experienced in promoting sales of natural gas for industrial and commercial purposes. Should be familiar with problems involved in use of gas for heating and processing. No traveling. Give complete details of personal data, training, and experience. State approximate salary expected. 0657.

Home Economist to conduct theater cooking schools for large mid-west utility. Will cook to travel. Applicants should state education and experience. 0658.

District Home Service Director for one division of large mid-west utility. Work includes all home service activities plus supervision of two other home economists. Include experience with letter of application. 0659.

Selling is needed

(Continued from page 35)

the United States. In three hours today, President Truman is spending more than George Washington spent in his eight years in office, Dr. Klotsche said.

The American people have tremendous confidence in their own ability to overcome obstacles, but are inclined to over-estimate the accomplishments of their opponents. We have technical supremacy over the Soviet today, he pointed out, as well as production and agricultural superiority. We not only have these, but we also have the power of an idea. This is the idea of the integrity of the individual, which totalitarian states refute. We must convince ourselves that the basic ideas of the United States are best, and then convince

others.

Mrs. Marjorie Child Husted, consumer relations consultant, Minneapolis, was the opening speaker on the Wednesday morning program. Recognized as the original Betty Crocker, for General Mills, and a pioneer in consumer relations work, Mrs. Husted was well qualified to advise sales executives on how to get the most out of their investment in home service departments. A success story can be built on home service if properly used, she declared. But the management's conception of how home service can best function must keep abreast of the times. Care should be exercised in the selection of home service girls, for today they must have not only the basic training in home economics, but they must be able to interpret policies and services of the company to

customers and also translate the woman's viewpoint to the company management.

W. S. Trueblood, sales promotion manager, Magic Chef, Inc., replaced L. L. Peters, director of LP sales for the same company, on the program because of the illness of Mr. Peters. Calling the LP-gas business the biggest news in thirty years in the gas industry, Mr. Trueblood said sales of bottled gas in 1951 were 300 percent ahead of 1946, and 23 percent ahead of 1950. LP-gas has outsold electricity in rural areas and is the greatest ally the gas utility can have today. LP dealers not only sell customers who are off gas lines, but also presell these customers on gas in the event they later move into the city or the city gas mains move out to their locality. They protect fringe areas and keep customers sold on gas, he said.

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